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<110> Mutter, George L.

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Variable	Mean	SD	Min	Max
Age	35.2	12.5	18	65
Gender	1.2	0.4	1	2
Marital Status	1.5	0.5	1	3
Education	12.8	2.1	9	16
Income	3200	1500	1000	8000
Health Status	1.8	0.6	1	3
Stress Level	2.5	0.8	1	4
Life Satisfaction	3.2	0.9	1	5
Work-Life Balance	2.8	0.7	1	4
Family Support	3.5	1.0	1	5
Community Involvement	2.1	0.6	1	3
Personal Growth	3.8	1.1	1	5
Financial Stability	2.9	0.8	1	4
Emotional Well-being	3.1	0.9	1	5
Physical Health	2.7	0.7	1	4
Social Connections	3.3	1.0	1	5
Meaning in Life	3.6	1.1	1	5
Resilience	2.6	0.8	1	4
Optimism	3.4	1.0	1	5
Gratitude	3.7	1.1	1	5
Self-compassion	2.9	0.9	1	4
Emotional Regulation	3.0	0.8	1	4
Life Purpose	3.9	1.2	1	5
Work Engagement	2.8	0.7	1	4
Job Satisfaction	3.1	0.9	1	5
Organizational Commitment	2.7	0.8	1	4
Leadership Skills	3.5	1.0	1	5
Teamwork	3.2	0.9	1	5
Communication Skills	3.6	1.1	1	5
Problem Solving	3.3	1.0	1	5
Decision Making	3.4	1.0	1	5
Time Management	3.1	0.9	1	5
Stress Management	3.0	0.8	1	4
Emotional Stability	3.2	0.9	1	5
Resilience	2.8	0.7	1	4
Optimism	3.5	1.0	1	5
Gratitude	3.7	1.1	1	5
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Job Satisfaction	3.1	0.9	1	5
Organizational Commitment	2.7	0.8	1	4
Leadership Skills	3.5	1.0	1	5
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Decision Making	3.4	1.0	1	5
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3437

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<210> 46
<211> 2038
<212> DNA
<213> Homo sapiens

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<211> 2588
<212> DNA
<213> Homo sapiens
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<213> Homo sapiens

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Ser	Thr	Phe	Asn	Tyr	Asn	Gly	Ser	Thr	Leu	Ala	Ala	Val	His	Ala	Thr	195	200	205	
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His	Asn	Ile	Ser	Gly	Val	Gly	Leu	Phe	Leu	His	Pro	Val	Gly	Leu	Glu	225	230	235	240
Leu	Leu	Leu	Asp	His	Arg	Ala	Leu	Asp	Pro	Ala	His	Trp	Thr	Val	Gln	245	250	255	
Gln	Val	Phe	Tyr	Leu	Gly	His	Tyr	Tyr	Ala	Asp	Leu	Gly	Gln	Leu	Glu	260	265	270	
Arg	Glu	Phe	Lys	Ser	Gly	Arg	Leu	Glu	Val	Val	Arg	Val	Pro	Leu	Pro	275	280	285	
Pro	Pro	Asn	Gly	Ala	Ser	Ser	Leu	Arg	Ser	Arg	Asn	Ser	Pro	Gly	Pro	290	295	300	
Leu	Pro	Pro	Leu	Gln	Phe	Ser	Pro	Gln	Gly	Ser	Gln	Tyr	Ser	Val	Gln	305	310	315	320
Gly	Asn	Leu	Val	Val	Ser	Ser	Leu	Trp	Ser	Phe	Thr	Phe	Gly	His	Gly	325	330	335	
Val	Phe	Ser	Gly	Leu	Arg	Ile	Phe	Asp	Val	Arg	Phe	Gln	Gly	Glu	Arg	340	345	350	
Ile	Ala	Tyr	Glu	Val	Ser	Val	Gln	Glu	Cys	Val	Ser	Ile	Tyr	Gly	Ala	355	360	365	
Asp	Ser	Pro	Lys	Thr	Met	Leu	Thr	Arg	Tyr	Leu	Asp	Ser	Ser	Phe	Gly	370	375	380	

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2022-07-20

Leu Gly Arg Asn Ser Arg Gly Leu Val Arg Gly Val Asp Cys Pro Tyr	385	390	395	400
Gln Ala Thr Met Val Asp Ile His Ile Leu Val Gly Lys Gly Ala Val		405	410	415
Gln Leu Leu Pro Gly Ala Val Cys Val Phe Glu Glu Ala Gln Gly Leu		420	425	430
Pro Leu Arg Arg His His Asn Tyr Leu Gln Asn His Phe Tyr Gly Gly		435	440	445
Leu Ala Ser Ser Ala Leu Val Val Arg Ser Val Ser Ser Val Gly Asn		450	455	460
Tyr Asp Tyr Ile Trp Asp Phe Val Leu Tyr Pro Asn Gly Ala Leu Glu		465	470	475
Gly Arg Val His Ala Thr Gly Tyr Ile Asn Thr Ala Phe Leu Lys Gly		485	490	495
Gly Glu Glu Gly Leu Leu Phe Gly Asn Arg Val Gly Glu Arg Val Leu		500	505	510
Gly Thr Val His Thr His Ala Phe His Phe Lys Leu Asp Leu Asp Val		515	520	525
Ala Gly Leu Lys Asn Trp Val Val Ala Glu Asp Val Val Phe Lys Pro		530	535	540
Val Ala Ala Pro Trp Asn Pro Glu His Trp Leu Gln Arg Pro Gln Leu		545	550	555
Thr Arg Gln Val Leu Gly Lys Glu Asp Leu Thr Ala Phe Ser Leu Gly		565	570	575
Ser Pro Leu Pro Arg Tyr Leu Tyr Leu Ala Ser Asn Gln Thr Asn Ala		580	585	590
Trp Gly His Gln Arg Gly Tyr Gln Leu Val Val Thr Gln Arg Lys Glu		595	600	605
Glu Glu Ser Gln Ser Ser Ser Ile Tyr His Gln Asn Asp Ile Trp Thr		610	615	620
Pro Thr Val Thr Phe Ala Asp Phe Ile Asn Asn Glu Thr Leu Leu Gly		625	630	635
Glu Asp Leu Val Ala Trp Val Thr Ala Ser Phe Leu His Ile Pro His		645	650	655
Ala Glu Asp Ile Pro Asn Thr Val Thr Leu Gly Asn Arg Val Gly Phe		660	665	670
Leu Leu Arg Pro Tyr Asn Phe Phe Asp Glu Asp Pro Ser Ile Phe Ser		675	680	685
Pro Gly Ser Val Tyr Phe Glu Lys Gly Gln Asp Ala Gly Leu Cys Ser		690	695	700

Leu Pro Pro Phe Ser Tyr His Gly Phe
725

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<210> 52
<211> 885
<212> PRT
<213> Homo sapiens
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<400> 52

Met Ala Trp Arg Cys Pro Arg Met Gly Arg Val Pro Leu Ala Trp Cys
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Leu Ala Leu Cys Gly Trp Ala Cys Met Ala Pro Arg Gly Thr Gln Ala
20 25 30

Glu Glu Ser Pro Phe Val Gly Asn Pro Gly Asn Ile Thr Gly Ala Arg
35 40 45

Gly Leu Thr Gly Thr Leu Arg Cys Gln Leu Gln Val Gln Gly Glu Pro
50 55 60

Pro Glu Val His Trp Leu Arg Asp Gly Gln Ile Leu Glu Leu Ala Asp
65 70 75 80

Ser Thr Gln Thr Gln Val Pro Leu Gly Glu Asp Glu Gln Asp Asp Trp
85 90 95

Ile Val Val Ser Gln Leu Arg Ile Thr Ser Leu Gln Leu Ser Asp Thr
100 105 110

Gly Gln Tyr Gln Cys Leu Val Phe Leu Gly His Gln Thr Phe Val Ser
115 120 125

Gln Pro Gly Tyr Val Gly Leu Glu Gly Leu Pro Tyr Phe Leu Glu Glu
130 135 140

Pro Glu Asp Arg Thr Val Ala Ala Asn Thr Pro Phe Asn Leu Ser Cys
145 150 155 160

Gln Ala Gln Gly Pro Pro Glu Pro Val Asp Leu Leu Trp Leu Gln Asp
165 170 175

Ala Val Pro Leu Ala Thr Ala Pro Gly His Gly Pro Gln Arg Ser Leu
180 185 190

His Val Pro Gly Leu Asn Lys Thr Ser Ser Phe Ser Cys Glu Ala His
195 200 205

Asn Ala Lys Gly Val Thr Thr Ser Arg Thr Ala Thr Ile Thr Val Leu
210 215 220

Pro Gln Gln Pro Arg Asn Leu His Leu Val Ser Arg Gln Pro Thr Glu
225 230 235 240

Leu Glu Val Ala Trp Thr Pro Gly Leu Ser Gly Ile Tyr Pro Leu Thr
245 250 255

His	Cys	Thr	Leu	Gln	Ala	Val	Leu	Ser	Asp	Asp	Gly	Met	Gly	Ile	Gln	260	265	270
Ala	Gly	Glu	Pro	Asp	Pro	Pro	Glu	Glu	Pro	Leu	Thr	Ser	Gln	Ala	Ser	275	280	285
Val	Pro	Pro	His	Gln	Leu	Arg	Leu	Gly	Ser	Leu	His	Pro	His	Thr	Pro	290	295	300
Tyr	His	Ile	Arg	Val	Ala	Cys	Thr	Ser	Ser	Gln	Gly	Pro	Ser	Ser	Trp	305	310	315
Thr	His	Trp	Leu	Pro	Val	Glu	Thr	Pro	Glu	Gly	Val	Pro	Leu	Gly	Pro	325	330	335
Pro	Lys	Asn	Ile	Ser	Ala	Thr	Arg	Asn	Gly	Ser	Gln	Ala	Phe	Val	His	340	345	350
Trp	Gln	Glu	Pro	Arg	Ala	Pro	Leu	Gln	Gly	Thr	Leu	Leu	Gly	Tyr	Arg	355	360	365
Leu	Ala	Tyr	Gln	Gly	Gln	Asp	Thr	Pro	Glu	Val	Leu	Met	Asp	Ile	Gly	370	375	380
Leu	Arg	Gln	Glu	Val	Thr	Leu	Glu	Leu	Gln	Gly	Asp	Gly	Ser	Val	Ser	385	390	395
Asn	Leu	Thr	Val	Cys	Val	Ala	Ala	Tyr	Thr	Ala	Ala	Gly	Asp	Gly	Pro	405	410	415
Trp	Ser	Leu	Pro	Val	Pro	Leu	Glu	Ala	Trp	Arg	Pro	Val	Lys	Glu	Pro	420	425	430
Ser	Thr	Pro	Ala	Phe	Ser	Trp	Pro	Trp	Trp	Tyr	Val	Leu	Leu	Gly	Ala	435	440	445
Val	Val	Ala	Ala	Ala	Cys	Val	Leu	Ile	Leu	Ala	Leu	Phe	Leu	Val	His	450	455	460
Arg	Arg	Lys	Lys	Glu	Thr	Arg	Tyr	Gly	Glu	Val	Phe	Glu	Pro	Thr	Val	465	470	475
Glu	Arg	Gly	Glu	Leu	Val	Val	Arg	Tyr	Arg	Val	Arg	Lys	Ser	Tyr	Ser	485	490	495
Arg	Arg	Thr	Thr	Glu	Ala	Thr	Leu	Asn	Ser	Leu	Gly	Ile	Ser	Glu	Glu	500	505	510
Leu	Lys	Glu	Lys	Leu	Arg	Asp	Val	Met	Val	Asp	Arg	His	Lys	Val	Ala	515	520	525
Leu	Gly	Lys	Thr	Leu	Gly	Glu	Gly	Glu	Phe	Gly	Ala	Val	Met	Glu	Gly	530	535	540
Gln	Leu	Asn	Gln	Asp	Asp	Ser	Ile	Leu	Lys	Val	Ala	Val	Lys	Thr	Met	545	550	555
Lys	Ile	Ala	Ile	Cys	Thr	Arg	Ser	Glu	Leu	Glu	Asp	Phe	Leu	Ser	Glu	565	570	575

001949-03101

<210> 53
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 <212> PRT
 <213> Homo sapiens

<400> 53

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Met Leu Leu Gly Leu Ala Ala Met Glu Leu Lys Val Trp Val Asp Gly
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Ile Gln Arg Val Val Cys Gly Val Ser Glu Gln Thr Thr Cys Gln Glu
          20          25          30

Val Val Ile Ala Leu Ala Gln Ala Ile Gly Gln Thr Gly Arg Phe Val
          35          40          45

Leu Val Gln Arg Leu Arg Glu Lys Glu Arg Gln Leu Leu Pro Gln Glu
          50          55          60

Cys Pro Val Gly Ala Gln Ala Thr Cys Gly Gln Phe Ala Ser Asp Val
65          70          75          80

Gln Phe Val Leu Arg Arg Thr Gly Pro Ser Leu Ala Gly Arg Pro Ser
          85          90          95

Ser Asp Ser Cys Pro Pro Pro Glu Arg Cys Leu Ile Arg Ala Ser Leu
          100          105          110

Pro Val Lys Pro Arg Ala Ala Leu Gly Cys Glu Pro Arg Lys Thr Leu
          115          120          125

Thr Pro Glu Pro Ala Pro Ser Leu Ser Arg Pro Gly Pro Ala Ala Pro
          130          135          140

Val Thr Pro Thr Pro Gly Cys Cys Thr Asp Leu Arg Gly Leu Glu Leu
145          150          155          160

Arg Val Gln Arg Asn Ala Glu Glu Leu Gly His Glu Ala Phe Trp Glu
          165          170          175

Gln Glu Leu Arg Arg Glu Gln Ala Arg Glu Arg Glu Gly Gln Ala Arg
          180          185          190

Leu Gln Ala Leu Ser Ala Ala Thr Ala Glu His Ala Ala Arg Leu Gln
          195          200          205

Ala Leu Asp Ala Gln Ala Arg Ala Leu Glu Ala Glu Leu Gln Leu Ala
          210          215          220

Ala Glu Ala Pro Gly Pro Pro Ser Pro Met Ala Ser Ala Thr Glu Arg
225          230          235          240

Leu His Gln Asp Leu Ala Val Gln Glu Arg Gln Ser Ala Glu Val Gln
          245          250          255

Gly Ser Leu Ala Leu Val Ser Arg Ala Leu Glu Ala Ala Glu Arg Ala
          260          265          270

Leu Gln Ala Gln Ala Gln Glu Leu Glu Glu Leu Asn Arg Glu Leu Arg
    
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0996497-0340

His	Glu	Thr	Tyr	His	Ala	Asn	Val	Pro	Glu	Arg	Ser	Asn	Val	Gly	Thr	165	170	175	
Ser	Val	Ile	Gln	Val	Thr	Ala	Ser	Asp	Ala	Asp	Asp	Pro	Thr	Tyr	Gly	180	185	190	
Asn	Ser	Ala	Lys	Leu	Val	Tyr	Ser	Ile	Leu	Glu	Gly	Gln	Pro	Tyr	Phe	195	200	205	
Ser	Val	Glu	Ala	Gln	Thr	Gly	Ile	Ile	Arg	Thr	Ala	Leu	Pro	Asn	Met	210	215	220	
Asp	Arg	Glu	Ala	Lys	Glu	Glu	Tyr	His	Val	Val	Ile	Gln	Ala	Lys	Asp	225	230	235	240
Met	Gly	Gly	His	Met	Gly	Gly	Leu	Ser	Gly	Thr	Thr	Lys	Val	Thr	Ile	245	250	255	
Thr	Leu	Thr	Asp	Val	Asn	Asp	Asn	Pro	Pro	Lys	Phe	Pro	Gln	Ser	Val	260	265	270	
Tyr	Gln	Ile	Ser	Val	Ser	Glu	Ala	Ala	Val	Pro	Gly	Glu	Glu	Val	Gly	275	280	285	
Arg	Val	Lys	Ala	Lys	Asp	Pro	Asp	Ile	Gly	Glu	Asn	Gly	Leu	Val	Thr	290	295	300	
Tyr	Asn	Ile	Val	Asp	Gly	Asp	Gly	Met	Glu	Ser	Phe	Glu	Ile	Thr	Thr	305	310	315	320
Asp	Tyr	Glu	Thr	Gln	Glu	Gly	Val	Ile	Lys	Leu	Lys	Lys	Pro	Val	Asp	325	330	335	
Phe	Glu	Thr	Lys	Arg	Ala	Tyr	Ser	Leu	Lys	Val	Glu	Ala	Ala	Asn	Val	340	345	350	
His	Ile	Asp	Pro	Lys	Phe	Ile	Ser	Asn	Gly	Pro	Phe	Lys	Asp	Thr	Val	355	360	365	
Thr	Val	Lys	Ile	Ala	Val	Glu	Asp	Ala	Asp	Glu	Pro	Pro	Met	Phe	Leu	370	375	380	
Ala	Pro	Ser	Tyr	Ile	His	Glu	Val	Gln	Glu	Asn	Ala	Ala	Ala	Gly	Thr	385	390	395	400
Val	Val	Gly	Arg	Val	His	Ala	Lys	Asp	Pro	Asp	Ala	Ala	Asn	Ser	Pro	405	410	415	
Ile	Arg	Tyr	Ser	Ile	Asp	Arg	His	Thr	Asp	Leu	Asp	Arg	Phe	Phe	Thr	420	425	430	
Ile	Asn	Pro	Glu	Asp	Gly	Phe	Ile	Lys	Thr	Thr	Lys	Pro	Leu	Asp	Arg	435	440	445	
Glu	Glu	Thr	Ala	Trp	Leu	Asn	Ile	Thr	Val	Phe	Ala	Ala	Glu	Ile	His	450	455	460	
Asn	Arg	His	Gln	Glu	Ala	Lys	Val	Pro	Val	Ala	Ile	Arg	Val	Leu	Asp	465	470	475	480

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Met	Glu	Pro	Trp	Ser	Ser	Arg	Trp	Lys	Thr	Lys	Arg	Trp	Leu	Trp	Asp	1	5	10	15
Phe	Thr	Val	Thr	Thr	Leu	Ala	Leu	Thr	Phe	Leu	Phe	Gln	Ala	Arg	Glu	20	25	30	
Val	Arg	Gly	Ala	Ala	Pro	Val	Asp	Val	Leu	Lys	Ala	Leu	Asp	Phe	His	35	40	45	
Asn	Ser	Pro	Glu	Gly	Ile	Ser	Lys	Thr	Thr	Gly	Phe	Cys	Thr	Asn	Arg	50	55	60	
Lys	Asn	Ser	Lys	Gly	Ser	Asp	Thr	Ala	Tyr	Arg	Val	Ser	Lys	Gln	Ala	65	70	75	80
Gln	Leu	Ser	Ala	Pro	Thr	Lys	Gln	Leu	Phe	Pro	Gly	Gly	Thr	Phe	Pro	85	90	95	
Glu	Asp	Phe	Ser	Ile	Leu	Phe	Thr	Val	Lys	Pro	Lys	Lys	Gly	Ile	Gln	100	105	110	
Ser	Phe	Leu	Leu	Ser	Ile	Tyr	Asn	Glu	His	Gly	Ile	Gln	Gln	Ile	Gly	115	120	125	
Val	Glu	Val	Gly	Arg	Ser	Pro	Val	Phe	Leu	Phe	Glu	Asp	His	Thr	Gly	130	135	140	
Lys	Pro	Ala	Pro	Glu	Asp	Tyr	Pro	Leu	Phe	Arg	Thr	Val	Asn	Ile	Ala	145	150	155	160
Asp	Gly	Lys	Trp	His	Arg	Val	Ala	Ile	Ser	Val	Glu	Lys	Lys	Thr	Val	165	170	175	
Thr	Met	Ile	Val	Asp	Cys	Lys	Lys	Lys	Thr	Thr	Lys	Pro	Leu	Asp	Arg	180	185	190	
Ser	Glu	Arg	Ala	Ile	Val	Asp	Thr	Asn	Gly	Ile	Thr	Val	Phe	Gly	Thr	195	200	205	
Arg	Ile	Leu	Asp	Glu	Glu	Val	Phe	Glu	Gly	Asp	Ile	Gln	Gln	Phe	Leu	210	215	220	
Ile	Thr	Gly	Asp	Pro	Lys	Ala	Ala	Tyr	Asp	Tyr	Cys	Glu	His	Tyr	Ser	225	230	235	240
Pro	Asp	Cys	Asp	Ser	Ser	Ala	Pro	Lys	Ala	Ala	Gln	Ala	Gln	Glu	Pro	245	250	255	
Gln	Ile	Asp	Glu	Tyr	Ala	Pro	Glu	Asp	Ile	Ile	Glu	Tyr	Asp	Tyr	Glu	260	265	270	
Tyr	Gly	Glu	Ala	Glu	Tyr	Lys	Glu	Ala	Glu	Ser	Val	Thr	Glu	Gly	Pro	275	280	285	
Thr	Val	Thr	Glu	Glu	Thr	Ile	Ala	Gln	Thr	Glu	Ala	Asn	Ile	Val	Asp	290	295	300	
Asp	Phe	Gln	Glu	Tyr	Asn	Tyr	Gly	Thr	Met	Glu	Ser	Tyr	Gln	Thr	Glu				

09191970304

625		630		635		640
Pro Arg Gly Leu	Pro Gly Glu Ala Gly	Pro Arg Gly Leu Leu Gly	Pro			
	645		650		655	
Arg Gly Thr	Pro Gly Ala Pro Gly Gln	Pro Gly Met Ala Gly Val Asp				
	660		665		670	
Gly Pro Pro Gly	Pro Lys Gly Asn Met Gly Pro Gln Gly Glu Pro Gly					
	675		680		685	
Pro Pro Gly Gln Gln Gly	Asn Pro Gly Pro Gln Gly Leu Pro Gly Pro					
	690		695		700	
Gln Gly Pro Ile Gly	Pro Pro Gly Glu Lys Gly Pro Gln Gly Lys Pro					
	705		710		715	
Gly Leu Ala Gly	Leu Pro Gly Ala Asp Gly Pro Pro Gly His Pro Gly					
	725		730		735	
Lys Glu Gly Gln Ser Gly	Glu Lys Gly Ala Leu Gly Pro Pro Gly Pro					
	740		745		750	
Gln Gly Pro Ile Gly	Xaa Pro Gly Pro Arg Gly Val Lys Gly Ala Asp					
	755		760		765	
Gly Val Arg Gly	Leu Lys Gly Ser Lys Gly Glu Lys Gly Glu Asp Gly					
	770		775		780	
Phe Pro Gly Phe Lys	Gly Asp Met Gly Leu Lys Gly Asp Arg Gly Glu					
	785		790		795	
Val Gly Gln Ile Gly	Pro Arg Gly Xaa Asp Gly Pro Glu Gly Pro Lys					
	805		810		815	
Gly Arg Ala Gly	Pro Thr Gly Asp Pro Gly Pro Ser Gly Gln Ala Gly					
	820		825		830	
Glu Lys Gly Lys	Leu Gly Val Pro Gly Leu Pro Gly Tyr Pro Gly Arg					
	835		840		845	
Gln Gly Pro Lys Gly	Ser Thr Gly Phe Pro Gly Phe Pro Gly Ala Asn					
	850		855		860	
Gly Glu Lys Gly	Ala Arg Gly Val Ala Gly Lys Pro Gly Pro Arg Gly					
	865		870		875	
Gln Arg Gly Pro	Thr Gly Pro Arg Gly Ser Arg Gly Ala Arg Gly Pro					
	885		890		895	
Thr Gly Lys Pro	Gly Pro Lys Gly Thr Ser Gly Gly Asp Gly Pro Pro					
	900		905		910	
Gly Pro Pro Gly	Glu Arg Gly Pro Gln Gly Pro Gln Gly Pro Val Gly					
	915		920		925	
Phe Pro Gly Pro	Lys Gly Pro Pro Gly Pro Pro Gly Arg Met Gly Cys					
	930		935		940	
Pro Gly His Pro	Gly Gln Arg Gly Glu Thr Gly Phe Gln Gly Lys Thr					

091949-07401

945		950		955		960
Gly Pro Pro Gly Pro Gly Gly Val Val Gly Pro Gln Gly Pro Thr Gly						
		965		970		975
Glu Thr Gly Pro Ile Gly Glu Arg Gly Tyr Pro Gly Pro Pro Gly Pro						
		980		985		990
Pro Gly Glu Gln Gly Leu Pro Gly Ala Ala Gly Lys Glu Gly Ala Lys						
		995		1000		1005
Gly Asp Pro Gly Pro Gln Gly Ile Ser Gly Lys Asp Gly Pro Ala						
		1010		1015		1020
Gly Leu Arg Gly Phe Pro Gly Glu Arg Gly Leu Pro Gly Ala Gln						
		1025		1030		1035
Gly Ala Pro Gly Leu Lys Gly Gly Glu Gly Pro Gln Gly Pro Pro						
		1040		1045		1050
Gly Pro Val Gly Ser Pro Gly Glu Arg Gly Ser Ala Gly Thr Ala						
		1055		1060		1065
Gly Pro Ile Gly Leu Arg Gly Arg Pro Gly Pro Gln Gly Pro Pro						
		1070		1075		1080
Gly Pro Ala Gly Glu Lys Gly Ala Pro Gly Glu Lys Gly Pro Gln						
		1085		1090		1095
Gly Pro Ala Gly Arg Asp Gly Val Gln Gly Pro Val Gly Leu Pro						
		1100		1105		1110
Gly Pro Ala Gly Pro Ala Gly Ser Pro Gly Glu Asp Gly Asp Lys						
		1115		1120		1125
Gly Glu Ile Gly Glu Pro Gly Gln Lys Gly Ser Lys Gly Gly Lys						
		1130		1135		1140
Gly Glu Asn Gly Pro Pro Gly Pro Pro Gly Leu Gln Gly Pro Val						
		1145		1150		1155
Gly Ala Pro Gly Ile Ala Gly Gly Asp Gly Glu Pro Gly Pro Arg						
		1160		1165		1170
Gly Gln Gln Gly Met Phe Gly Gln Lys Gly Asp Glu Gly Ala Arg						
		1175		1180		1185
Gly Phe Pro Gly Pro Pro Gly Pro Ile Gly Leu Gln Gly Leu Pro						
		1190		1195		1200
Gly Pro Pro Gly Glu Lys Gly Glu Asn Gly Asp Val Gly Pro Trp						
		1205		1210		1215
Gly Pro Pro Gly Pro Pro Gly Pro Arg Gly Pro Gln Gly Pro Asn						
		1220		1225		1230
Gly Ala Asp Gly Pro Gln Gly Pro Pro Gly Ser Val Gly Ser Val						
		1235		1240		1245
Gly Gly Val Gly Glu Lys Gly Glu Pro Gly Glu Ala Gly Asn Pro						

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<213>	Homo sapiens
<400>	57

Gly Pro Glu Ile Arg Lys Ile Phe Tyr Gly Ser Phe His Lys Leu His
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Ile Val Val Ser Glu Thr Leu Val Lys Val Val Ile Asp Cys Lys Gln
340 345 350

Val Gly Glu Lys Ala Met Asn Ala Ser Ala Asn Ile Thr Ser Asp Gly
355 360 365

Val Glu Val Leu Gly Lys Met Val Arg Ser Arg Gly Pro Gly Gly Asn
370 375 380

Ser Ala Pro Phe Gln Leu Gln Met Phe Asp Ile Val Cys Ser Thr Ser
385 390 395 400

Trp Ala Asn Thr Asp Lys Cys Cys Glu Leu Pro Gly Leu Arg Asp Asp
405 410 415

Glu Ser Cys Pro Asp Leu Pro His Ser Cys Ser Cys Ser Glu Thr Asn
420 425 430

Glu Val Ala Leu Gly Pro Ala Gly Pro Pro Gly Gly Pro Gly Leu Arg
435 440 445

Gly Pro Lys Gly Gln Gln Gly Glu Pro Gly Pro Lys Gly Pro Asp Gly
450 455 460

Pro Arg Gly Glu Ile Gly Leu Pro Gly Pro Gln Gly Pro Pro Gly Pro
465 470 475 480

Gln Gly Pro Ser Gly Leu Ser Ile Gln Gly Met Pro Gly Met Pro Gly
485 490 495

Glu Lys Gly Glu Lys Gly Asp Thr Gly Leu Pro Gly Pro Gln Gly Ile
500 505 510

Pro Gly Gly Val Gly Ser Pro Gly Arg Asp Gly Ser Pro Gly Gln Arg
515 520 525

Gly Leu Pro Gly Lys Asp Gly Ser Ser Gly Pro Pro Gly Pro Pro Gly
530 535 540

Pro Ile Gly Ile Pro Gly Thr Pro Gly Val Pro Gly Ile Thr Gly Ser
545 550 555 560

Met Gly Pro Gln Gly Ala Leu Gly Pro Pro Gly Val Pro Gly Ala Lys
565 570 575

Gly Glu Arg Gly Glu Arg Gly Asp Leu Gln Ser Gln Ala Met Val Arg
580 585 590

Ser Val Ala Arg Gln Val Cys Glu Gln Leu Ile Gln Ser His Met Ala
595 600 605

Arg Tyr Thr Ala Ile Leu Asn Gln Ile Pro Ser His Ser Ser Ser Ile
610 615 620

Arg Thr Val Gln Gly Pro Pro Gly Glu Pro Gly Arg Pro Gly Ser Pro
625 630 635 640

00440" 4646T660

Gly Ala Pro Gly Glu Gln Gly Pro Pro Gly Thr Pro Gly Phe Pro Gly
645 650 655

Asn Ala Gly Val Pro Gly Thr Pro Gly Glu Arg Gly Leu Thr Gly Ile
660 665 670

Lys Gly Glu Lys Gly Asn Pro Gly Val Gly Thr Gln Gly Pro Arg Gly
675 680 685

Pro Pro Gly Pro Ala Gly Pro Ser Gly Glu Ser Arg Pro Gly Ser Pro
690 695 700

Gly Pro Pro Gly Ser Pro Gly Pro Arg Gly Pro Pro Gly His Leu Gly
705 710 715 720

Val Pro Gly Pro Gln Gly Pro Ser Gly Gln Pro Gly Tyr Cys Asp Pro
725 730 735

Ser Ser Cys Ser Ala Tyr Gly Val Arg Asp Leu Ile Pro Tyr Asn Asp
740 745 750

Tyr Gln His
755

<210> 58
<211> 543
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<213> Homo sapiens

<400> 58

Met Gly Thr Ser Leu Ser Pro Asn Asp Pro Trp Pro Leu Asn Pro Leu
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Ser Ile Gln Gln Thr Thr Leu Leu Leu Leu Ser Val Leu Ala Thr
20 25 30

Val His Val Gly Gln Arg Leu Leu Arg Gln Arg Arg Arg Gln Leu Arg
35 40 45

Ser Ala Pro Pro Gly Pro Phe Ala Trp Pro Leu Ile Gly Asn Ala Ala
50 55 60

Ala Val Gly Gln Ala Ala His Leu Ser Phe Ala Arg Leu Ala Arg Arg
65 70 75 80

Tyr Gly Asp Val Phe Gln Ile Arg Leu Gly Ser Cys Pro Ile Val Val
85 90 95

Leu Asn Gly Glu Arg Ala Ile His Gln Ala Leu Val Gln Gln Gly Ser
100 105 110

Ala Phe Ala Asp Arg Pro Ala Phe Ala Ser Phe Arg Val Val Ser Gly
115 120 125

Gly Arg Ser Met Ala Phe Gly His Tyr Ser Glu His Trp Lys Val Gln
130 135 140

Arg Arg Ala Ala His Ser Met Met Arg Asn Phe Phe Thr Arg Gln Pro
145 150 155 160

00469 000

Arg Ser Arg Gln Val Leu Glu Gly His Val Leu Ser Glu Ala Arg Glu
165 170 175

Leu Val Ala Leu Leu Val Arg Gly Ser Ala Asp Gly Ala Phe Leu Asp
180 185 190

Pro Arg Pro Leu Thr Val Val Ala Val Ala Asn Val Met Ser Ala Val
195 200 205

Cys Phe Gly Cys Arg Tyr Ser His Asp Asp Pro Glu Phe Arg Glu Leu
210 215 220

Leu Ser His Asn Glu Glu Phe Gly Arg Thr Val Gly Ala Gly Ser Leu
225 230 235 240

Val Asp Val Met Pro Trp Leu Gln Tyr Phe Pro Asn Pro Val Arg Thr
245 250 255

Val Phe Arg Glu Phe Glu Gln Leu Asn Arg Asn Phe Ser Asn Phe Ile
260 265 270

Leu Asp Lys Phe Leu Arg His Cys Glu Ser Leu Arg Pro Gly Ala Ala
275 280 285

Pro Arg Asp Met Met Asp Ala Phe Ile Leu Ser Ala Glu Lys Lys Ala
290 295 300

Ala Gly Asp Ser His Gly Gly Gly Ala Arg Leu Asp Leu Glu Asn Val
305 310 315 320

Pro Ala Thr Ile Thr Asp Ile Phe Gly Ala Ser Gln Asp Thr Leu Ser
325 330 335

Thr Ala Leu Gln Trp Leu Leu Leu Leu Phe Thr Arg Tyr Pro Asp Val
340 345 350

Gln Thr Arg Val Gln Ala Glu Leu Asp Gln Val Val Gly Arg Asp Arg
355 360 365

Leu Pro Cys Met Gly Asp Gln Pro Asn Leu Pro Tyr Val Leu Ala Phe
370 375 380

Leu Tyr Glu Ala Met Arg Phe Ser Ser Phe Val Pro Val Thr Ile Pro
385 390 395 400

His Ala Thr Thr Ala Asn Thr Ser Val Leu Gly Tyr His Ile Pro Lys
405 410 415

Asp Thr Val Val Phe Val Asn Gln Trp Ser Val Asn His Asp Pro Val
420 425 430

Lys Trp Pro Asn Pro Glu Asn Phe Asp Pro Ala Arg Phe Leu Asp Lys
435 440 445

Asp Gly Leu Ile Asn Lys Asp Leu Thr Ser Arg Val Met Ile Phe Ser
450 455 460

Val Gly Lys Arg Arg Cys Ile Gly Glu Glu Leu Ser Lys Met Gln Leu
465 470 475 480

091949-07103

210					215					220					
His 225	Ile	Pro	Gly	Asp	Asn 230	Ser	Ile	Tyr	Val	Thr 235	Lys	Ile	Ile	Glu	Gly 240
Gly	Ala	Ala	His	Lys 245	Asp	Gly	Arg	Leu	Gln 250	Ile	Gly	Asp	Lys	Ile 255	Leu
Ala	Val	Asn	Ser	Val 260	Gly	Leu	Glu	Asp 265	Val	Met	His	Glu	Asp 270	Ala	Val
Ala	Ala	Leu 275	Lys	Asn	Thr	Tyr	Asp 280	Val	Val	Tyr	Leu	Lys 285	Val	Ala	Lys
Pro 290	Ser	Asn	Ala	Tyr	Leu	Ser 295	Asp	Ser	Tyr	Ala	Pro 300	Pro	Asp	Ile	Thr
Thr 305	Ser	Tyr	Ser	Gln 310	His	Leu	Asp	Asn	Glu	Ile 315	Ser	His	Ser	Ser	Tyr 320
Leu	Gly	Thr	Asp	Tyr 325	Pro	Thr	Ala	Met	Thr 330	Pro	Thr	Ser	Pro	Arg 335	Arg
Tyr	Ser	Pro	Val 340	Ala	Lys	Asp	Leu 345	Leu	Gly	Glu	Glu	Asp	Ile 350	Pro	Arg
Glu	Pro	Arg 355	Arg	Ile	Val	Ile	His 360	Arg	Gly	Ser	Thr	Gly 365	Leu	Gly	Phe
Asn 370	Ile	Val	Gly	Gly	Glu	Asp 375	Gly	Glu	Gly	Ile	Phe 380	Ile	Ser	Phe	Ile
Leu 385	Ala	Gly	Gly	Pro	Ala 390	Asp	Leu	Ser	Gly	Glu 395	Leu	Arg	Lys	Gly	Asp 400
Gln	Ile	Leu	Ser	Val 405	Asn	Gly	Val	Asp	Leu 410	Arg	Asn	Ala	Ser	His 415	Glu
Gln	Ala	Ala	Ile 420	Ala	Leu	Lys	Asn	Ala 425	Gly	Gln	Thr	Val	Thr 430	Ile	Ile
Ala	Gln	Tyr 435	Lys	Pro	Glu	Glu	Tyr 440	Ser	Arg	Phe	Glu	Ala 445	Lys	Ile	His
Asp 450	Leu	Arg	Glu	Gln	Leu	Met 455	Asn	Ser	Ser	Leu	Gly 460	Ser	Gly	Thr	Ala
Ser 465	Leu	Arg	Ser	Asn 470	Pro	Lys	Arg	Gly	Phe	Tyr 475	Ile	Arg	Ala	Leu	Phe 480
Asp	Tyr	Asp	Lys 485	Thr	Lys	Asp	Cys	Gly	Phe 490	Leu	Ser	Gln	Ala	Leu 495	Ser
Phe	Arg	Phe	Gly 500	Asp	Val	Leu	His	Val 505	Ile	Asp	Ala	Ser	Asp 510	Glu	Glu
Trp	Trp	Gln 515	Ala	Arg	Arg	Val	His 520	Ser	Asp	Ser	Glu	Thr 525	Asp	Asp	Ile
Gly	Phe	Ile	Pro	Ser	Lys	Arg	Arg	Val	Glu	Arg	Arg	Glu	Trp	Ser	Arg

530		535		540	
Leu Lys Ala Lys Asp Trp Gly Ser Ser Ser Gly Ser Gln Gly Arg Glu					
545		550		555	560
Asp Ser Val Leu Ser Tyr Glu Thr Val Thr Gln Met Glu Val His Tyr					
	565		570		575
Ala Arg Pro Ile Ile Ile Leu Gly Pro Thr Lys Asp Arg Ala Asn Asp					
	580		585		590
Asp Leu Leu Ser Glu Phe Pro Asp Lys Phe Gly Ser Cys Val Pro His					
	595		600		605
Thr Thr Arg Pro Lys Arg Glu Tyr Glu Ile Asp Gly Arg Asp Tyr His					
	610		615		620
Phe Val Ser Ser Arg Glu Lys Met Glu Lys Asp Ile Gln Ala His Lys					
	625		630		635
Phe Ile Glu Ala Gly Gln Tyr Asn Ser His Leu Tyr Gly Thr Ser Val					
		645		650	655
Gln Ser Val Arg Glu Val Ala Glu Gln Gly Lys His Cys Ile Leu Asp					
		660		665	670
Val Ser Ala Asn Ala Val Arg Arg Leu Gln Ala Ala His Leu His Pro					
	675		680		685
Ile Ala Ile Phe Ile Arg Pro Arg Ser Leu Glu Asn Val Leu Glu Ile					
	690		695		700
Asn Lys Arg Ile Thr Glu Glu Gln Ala Arg Lys Ala Phe Asp Arg Ala					
	705		710		715
Thr Lys Leu Glu Gln Glu Phe Thr Glu Cys Phe Ser Ala Ile Val Glu					
		725		730	735
Gly Asp Ser Phe Glu Glu Ile Tyr His Lys Val Lys Arg Val Ile Glu					
	740		745		750
Asp Leu Ser Gly Pro Tyr Ile Trp Val Pro Ala Arg Glu Arg Leu					
	755		760		765
<210> 60					
<211> 367					
<212> PRT					
<213> Homo sapiens					
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Met Val Met Glu Val Gly Thr Leu Asp Ala Gly Gly Leu Arg Ala Leu					
1		5		10	15
Leu Gly Glu Arg Ala Ala Gln Cys Leu Leu Asp Cys Arg Ser Phe					
	20		25		30
Phe Ala Phe Asn Ala Gly His Ile Ala Gly Ser Val Asn Val Arg Phe					
	35		40		45

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Ser Thr Ile Val Arg Arg Arg Ala Lys Gly Ala Met Gly Leu Glu His
50 55 60

Ile Val Pro Asn Ala Glu Leu Arg Gly Arg Leu Leu Ala Gly Ala Tyr
65 70 75 80

His Ala Val Val Leu Leu Asp Glu Arg Ser Ala Ala Leu Asp Gly Ala
85 90 95

Lys Arg Asp Gly Thr Leu Ala Leu Ala Ala Gly Ala Leu Cys Arg Glu
100 105 110

Ala Arg Ala Ala Gln Val Phe Phe Leu Lys Gly Gly Tyr Glu Ala Phe
115 120 125

Ser Ala Ser Cys Pro Glu Leu Cys Ser Lys Gln Ser Thr Pro Met Gly
130 135 140

Leu Ser Leu Pro Leu Ser Thr Ser Val Pro Asp Ser Ala Glu Ser Gly
145 150 155 160

Cys Ser Ser Cys Ser Thr Pro Leu Tyr Asp Gln Gly Gly Pro Val Glu
165 170 175

Ile Leu Pro Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Arg Lys
180 185 190

Asp Met Leu Asp Ala Leu Gly Ile Thr Ala Leu Ile Asn Val Ser Ala
195 200 205

Asn Cys Pro Asn His Phe Glu Gly His Tyr Gln Tyr Lys Ser Ile Pro
210 215 220

Val Glu Asp Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala
225 230 235 240

Ile Asp Phe Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val
245 250 255

His Cys Gln Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr
260 265 270

Leu Met Arg Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val
275 280 285

Lys Gln Arg Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln
290 295 300

Leu Leu Gln Phe Glu Ser Gln Val Leu Ala Pro His Cys Ser Ala Glu
305 310 315 320

Ala Gly Ser Pro Ala Met Ala Val Leu Asp Arg Gly Thr Ser Thr Thr
325 330 335

Thr Val Phe Asn Phe Pro Val Ser Ile Pro Val His Ser Thr Asn Ser
340 345 350

Ala Leu Ser Tyr Leu Gln Ser Pro Ile Thr Thr Ser Pro Ser Cys
355 360 365

094649 0340
104220 264650

Glu Glu Phe Gly Lys Leu Ala Leu Trp Lys Arg Asn Glu Leu Lys Lys
385 390 395 400

Lys Ala Ser Leu Phe
405

<210> 64
<211> 916
<212> PRT
<213> Homo sapiens

<400> 64

Met Glu Ser Gly Gln Pro Ala Arg Arg Ile Ala Met Ala Pro Leu Leu
1 5 10 15

Glu Tyr Glu Arg Gln Leu Val Leu Glu Leu Leu Asp Thr Asp Gly Leu
20 25 30

Val Val Cys Ala Arg Gly Leu Gly Ala Asp Arg Leu Leu Tyr His Phe
35 40 45

Leu Gln Leu His Cys His Pro Ala Cys Leu Val Leu Val Leu Asn Thr
50 55 60

Gln Pro Ala Glu Glu Glu Tyr Phe Ile Asn Gln Leu Lys Ile Glu Gly
65 70 75 80

Val Glu His Leu Pro Arg Arg Val Thr Asn Glu Ile Thr Ser Asn Ser
85 90 95

Arg Tyr Glu Val Tyr Thr Gln Gly Gly Val Ile Phe Ala Thr Ser Arg
100 105 110

Ile Leu Val Val Asp Phe Leu Thr Asp Arg Ile Pro Ser Asp Leu Ile
115 120 125

Thr Gly Ile Leu Val Tyr Arg Ala His Arg Ile Ile Glu Ser Cys Gln
130 135 140

Glu Ala Phe Ile Leu Arg Leu Phe Arg Gln Lys Asn Lys Arg Gly Phe
145 150 155 160

Ile Lys Ala Phe Thr Asp Asn Ala Val Ala Phe Asp Thr Gly Phe Cys
165 170 175

His Val Glu Arg Val Met Arg Asn Leu Phe Val Arg Lys Leu Tyr Leu
180 185 190

Trp Pro Arg Phe His Val Ala Val Asn Ser Phe Leu Glu Gln His Lys
195 200 205

Pro Glu Val Val Glu Ile His Val Ser Met Thr Pro Thr Met Leu Ala
210 215 220

Ile Gln Thr Ala Ile Leu Asp Ile Leu Asn Ala Cys Leu Lys Glu Leu
225 230 235 240

Lys Cys His Asn Pro Ser Leu Glu Val Glu Asp Leu Ser Leu Glu Asn
245 250 255

Trp Leu Val Val Asp Phe Leu Thr Asp Arg Ile Pro Ser Asp Leu Ile

Tyr Val Val Leu Tyr Asp Ala Glu Leu Thr Phe Val Arg Gln Leu Glu
 580 585 590
 Ile Tyr Arg Ala Ser Arg Pro Gly Lys Pro Leu Arg Val Tyr Phe Leu
 595 600 605
 Ile Tyr Gly Gly Ser Thr Glu Glu Gln Arg Tyr Leu Thr Ala Leu Arg
 610 615 620
 Lys Glu Lys Glu Ala Phe Glu Lys Leu Ile Arg Glu Lys Ala Ser Met
 625 630 635 640
 Val Val Pro Glu Glu Arg Glu Gly Arg Asp Glu Thr Asn Leu Asp Leu
 645 650 655
 Val Arg Gly Thr Ala Ser Ala Asp Val Ser Thr Asp Thr Arg Lys Ala
 660 665 670
 Gly Gly Gln Glu Gln Asn Gly Thr Gln Gln Ser Ile Val Val Asp Met
 675 680 685
 Arg Glu Phe Arg Ser Glu Leu Pro Ser Leu Ile His Arg Arg Gly Ile
 690 695 700
 Asp Ile Glu Pro Val Thr Leu Glu Val Gly Asp Tyr Ile Leu Thr Pro
 705 710 715 720
 Glu Met Cys Val Glu Arg Lys Ser Ile Ser Asp Leu Ile Gly Ser Leu
 725 730 735
 Asn Asn Gly Arg Leu Tyr Ser Gln Cys Ile Ser Met Ser Arg Tyr Tyr
 740 745 750
 Lys Arg Pro Val Leu Leu Ile Glu Phe Asp Pro Ser Lys Pro Phe Ser
 755 760 765
 Leu Thr Ser Arg Gly Ala Leu Phe Gln Glu Ile Ser Ser Asn Asp Ile
 770 775 780
 Ser Ser Lys Leu Thr Leu Leu Thr Leu His Phe Pro Arg Leu Arg Ile
 785 790 795 800
 Leu Trp Cys Pro Ser Pro His Ala Thr Ala Glu Leu Phe Glu Glu Leu
 805 810 815
 Lys Gln Ser Lys Pro Gln Pro Asp Ala Ala Thr Ala Leu Ala Ile Thr
 820 825 830
 Ala Asp Ser Glu Thr Leu Pro Glu Ser Glu Lys Tyr Asn Pro Gly Pro
 835 840 845
 Gln Asp Phe Leu Leu Lys Met Pro Gly Val Asn Ala Lys Asn Cys Arg
 850 855 860
 Ser Leu Met His His Val Lys Asn Ile Ala Glu Leu Ala Ala Leu Ser
 865 870 875 880
 Gln Asp Glu Leu Thr Ser Ile Leu Gly Asn Ala Ala Asn Ala Lys Gln
 885 890 895

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Leu Tyr Asp Phe Ile His Thr Ser Phe Ala Glu Val Val Ser Lys Gly
 900 905 910

Lys Gly Lys Lys
 915

<210> 65
 <211> 297
 <212> PRT
 <213> Homo sapiens

<400> 65

Glu Phe Gly Ala Lys Ser Asn Gln Gln Leu Asp Arg Lys Arg Met Ala
 1 5 10 15
 Leu Lys Gln Ile Ser Ser Asn Lys Cys Phe Gly Gly Leu Gln Lys Val
 20 25 30
 Phe Glu His Asp Ser Val Glu Leu Asn Cys Lys Met Lys Phe Ala Val
 35 40 45
 Tyr Leu Pro Pro Lys Ala Glu Thr Gly Lys Cys Pro Ala Cys Ile Gly
 50 55 60
 Ser Pro Gly Leu Thr Cys Thr Glu Pro Lys Phe Tyr His Gln Asn Leu
 65 70 75 80
 Val Ile Ile Ser Leu Leu Gln Asn His Leu Ser Cys Cys His Cys Ser
 85 90 95
 Arg Tyr Ser Pro Arg Ala Cys Asn Ile Lys Gly Glu Asp Glu Ser Trp
 100 105 110
 Asp Phe Ala Thr Gly Arg Gly Phe Tyr Val Asp Ala Thr Glu Asp Pro
 115 120 125
 Trp Lys Thr Asn Tyr Arg Met Tyr Ser Tyr Val Thr Glu Glu Leu Pro
 130 135 140
 Gln Leu Ile Asn Ala Asn Phe Pro Val Asp Pro Gln Arg Met Ser Ile
 145 150 155 160
 Phe Gly His Ser Met Gly Gly His Gly Ala Leu Ile Cys Ala Leu Lys
 165 170 175
 Asn Pro Gly Lys Tyr Lys Ser Val Ser Ala Phe Ala Pro Ile Cys Asn
 180 185 190
 Pro Val Leu Cys Pro Trp Gly Lys Lys Ala Phe Ser Gly Tyr Leu Gly
 195 200 205
 Thr Asp Gln Ser Lys Trp Lys Ala Tyr Asp Ala Thr His Leu Val Lys
 210 215 220
 Ser Tyr Pro Gly Ser Gln Leu Asp Ile Leu Ile Asp Gln Gly Lys Asp
 225 230 235 240
 Asp Gln Phe Leu Leu Asp Gly Gln Leu Leu Pro Asp Asn Phe Ile Ala

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245	250	255
Ala Cys Thr Glu Lys Lys Ile Pro Val Val Phe Arg Leu Gln Glu Gly		
260	265	270
Tyr Asp His Ser Tyr Tyr Phe Ile Ala Thr Phe Ile Thr Asp His Ile		
275	280	285
Arg His His Ala Lys Tyr Leu Asn Ala		
290	295	
<210> 66		
<211> 756		
<212> PRT		
<213> Homo sapiens		
<400> 66		
Met Ser Pro Gln Lys Arg Val Lys Asn Val Gln Ala Gln Asn Arg Thr		
1	5	10
Ser Gln Gly Ser Ser Ser Phe Gln Thr Thr Leu Ser Ala Trp Lys Val		
20	25	30
Lys Gln Asp Pro Ser Asn Ser Lys Asn Ile Ser Lys His Gly Gln Asn		
35	40	45
Asn Pro Val Gly Asp Tyr Glu His Ala Asp Asp Gln Ala Glu Glu Asp		
50	55	60
Ala Leu Gln Met Ala Val Gly Tyr Phe Glu Lys Gly Pro Ile Lys Ala		
65	70	75
Ser Gln Asn Lys Asp Lys Thr Leu Glu Lys His Leu Lys Thr Val Glu		
85	90	95
Asn Val Ala Trp Lys Asn Gly Leu Ala Ser Glu Glu Ile Asp Ile Leu		
100	105	110
Leu Asn Ile Ala Leu Ser Gly Lys Phe Gly Asn Ala Val Asn Thr Arg		
115	120	125
Ile Leu Lys Cys Met Ile Pro Ala Thr Val Ile Ser Glu Asp Ser Val		
130	135	140
Val Lys Ala Val Ser Trp Leu Cys Val Gly Lys Cys Ser Gly Ser Thr		
145	150	155
Lys Val Leu Phe Tyr Arg Trp Leu Val Ala Met Phe Asp Phe Ile Asp		
165	170	175
Arg Lys Glu Gln Ile Asn Leu Leu Tyr Gly Phe Phe Phe Ala Ser Leu		
180	185	190
Gln Asp Asp Ala Leu Cys Pro Tyr Val Cys His Leu Leu Tyr Leu Leu		
195	200	205
Thr Lys Lys Glu Asn Val Lys Pro Phe Arg Val Arg Lys Leu Leu Asp		
210	215	220

Leu Gln Ala Lys Met Gly Met Gln Pro His Leu Gln Ala Leu Leu Ser
 225 230 235 240
 Leu Tyr Lys Phe Phe Ala Pro Ala Leu Ile Ser Val Ser Leu Pro Val
 245 250 255
 Arg Lys Lys Ile Tyr Leu Gln Asn Ser Glu Asn Leu Trp Lys Thr Ala
 260 265 270
 Leu Leu Ala Val Lys Gln Arg Asn Arg Gly Pro Ser Pro Glu Pro Leu
 275 280 285
 Lys Leu Met Leu Gly Pro Ala Asn Val Arg Pro Leu Lys Arg Lys Trp
 290 295 300
 Asn Ser Leu Ser Val Ile Pro Val Leu Asn Ser Ser Ser Tyr Thr Lys
 305 310 315 320
 Glu Cys Gly Lys Lys Glu Met Ser Leu Ser Asp Cys Leu Asn Arg Ser
 325 330 335
 Gly Ser Phe Pro Leu Glu Gln Leu Gln Ser Phe Pro Gln Leu Leu Gln
 340 345 350
 Asn Ile His Cys Leu Glu Leu Pro Ser Gln Met Gly Ser Val Leu Asn
 355 360 365
 Asn Ser Leu Leu Leu His Tyr Ile Asn Cys Val Arg Asp Glu Pro Val
 370 375 380
 Leu Leu Arg Phe His Tyr Trp Leu Ser Gln Thr Leu Gln Glu Glu Cys
 385 390 395 400
 Ile Trp Tyr Lys Val Asn Asn Tyr Glu His Gly Lys Glu Phe Thr Asn
 405 410 415
 Phe Leu Asp Thr Ile Ile Arg Ala Glu Cys Phe Leu Gln Glu Gly Tyr
 420 425 430
 Tyr Ser Cys Glu Ala Phe Leu Tyr Lys Ser Leu Pro Leu Trp Asp Gly
 435 440 445
 Leu Ser Cys Arg Ser Gln Phe Leu Gln Leu Val Ser Trp Ile Pro Phe
 450 455 460
 Ser Ser Phe Ser Glu Val Lys Pro Leu Leu Phe Asp His Leu Ala Gln
 465 470 475 480
 Leu Phe Phe Thr Ser Thr Ile Tyr Phe Lys Cys Ser Val Leu Gln Ser
 485 490 495
 Leu Lys Glu Leu Leu Gln Asn Trp Leu Leu Trp Leu Ser Met Asp Ile
 500 505 510
 His Met Lys Pro Val Thr Asn Ser Pro Leu Glu Thr Thr Leu Gly Gly
 515 520 525
 Ser Met Asn Cys Val Ser Lys Leu Ile His Tyr Val Gly Trp Leu Ser
 530 535 540

Lys	Thr	Ser	Phe	Gly	Met	Ser	Val	Phe	Asn	Leu	Ser	Asn	Ala	Ile	Met	65	70	75	80
Gly	Ser	Gly	Ile	Leu	Gly	Leu	Ala	Tyr	Ala	Met	Ala	Asn	Thr	Gly	Ile	85	90	95	
Ile	Leu	Phe	Leu	Phe	Leu	Leu	Thr	Ala	Val	Ala	Leu	Leu	Ser	Ser	Tyr	100	105	110	
Ser	Ile	His	Leu	Leu	Leu	Lys	Ser	Ser	Gly	Val	Val	Gly	Ile	Arg	Ala	115	120	125	
Tyr	Glu	Gln	Leu	Gly	Tyr	Arg	Ala	Phe	Gly	Thr	Pro	Gly	Lys	Leu	Ala	130	135	140	
Ala	Ala	Leu	Ala	Ile	Thr	Leu	Gln	Asn	Ile	Gly	Ala	Met	Ser	Ser	Tyr	145	150	155	160
Leu	Tyr	Ile	Ile	Lys	Ser	Glu	Leu	Pro	Leu	Val	Ile	Gln	Thr	Phe	Leu	165	170	175	
Asn	Leu	Glu	Glu	Lys	Thr	Ser	Asp	Trp	Tyr	Met	Asn	Gly	Asn	Tyr	Leu	180	185	190	
Val	Ile	Leu	Val	Ser	Val	Thr	Ile	Ile	Leu	Pro	Leu	Ala	Leu	Met	Arg	195	200	205	
Gln	Leu	Gly	Tyr	Leu	Gly	Tyr	Ser	Ser	Gly	Phe	Ser	Leu	Ser	Cys	Met	210	215	220	
Val	Phe	Phe	Leu	Ile	Ala	Val	Ile	Tyr	Lys	Lys	Phe	His	Val	Pro	Cys	225	230	235	240
Pro	Leu	Pro	Pro	Asn	Phe	Asn	Asn	Thr	Thr	Gly	Asn	Phe	Ser	His	Val	245	250	255	
Glu	Ile	Val	Lys	Glu	Lys	Val	Gln	Leu	Gln	Val	Glu	Pro	Glu	Ala	Ser	260	265	270	
Ala	Phe	Cys	Thr	Pro	Ser	Tyr	Phe	Thr	Leu	Asn	Ser	Gln	Thr	Ala	Tyr	275	280	285	
Thr	Ile	Pro	Ile	Met	Ala	Phe	Ala	Phe	Val	Cys	His	Pro	Glu	Val	Leu	290	295	300	
Pro	Ile	Tyr	Thr	Glu	Leu	Lys	Asp	Pro	Ser	Lys	Lys	Lys	Met	Gln	His	305	310	315	320
Ile	Ser	Asn	Leu	Ser	Ile	Ala	Val	Met	Tyr	Ile	Met	Tyr	Phe	Leu	Ala	325	330	335	
Ala	Leu	Phe	Gly	Tyr	Leu	Thr	Phe	Tyr	Asn	Gly	Val	Glu	Ser	Glu	Leu	340	345	350	
Leu	His	Thr	Tyr	Ser	Lys	Val	Asp	Pro	Phe	Asp	Val	Leu	Ile	Leu	Cys	355	360	365	
Val	Arg	Val	Ala	Val	Leu	Thr	Ala	Val	Thr	Leu	Thr	Val	Pro	Ile	Val	370	375	380	

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Leu Phe Pro Val Arg Arg Ala Ile Gln Gln Met Leu Phe Pro Asn Gln
385 390 395 400

Glu Phe Ser Trp Leu Arg His Val Leu Ile Ala Val Gly Leu Leu Thr
405 410 415

Cys Ile Asn Leu Leu Val Ile Phe Ala Pro Asn Ile Leu Gly Ile Phe
420 425 430

Gly Val Ile Gly Ala Thr Ser Ala Pro Phe Leu Ile Phe Ile Phe Pro
435 440 445

Ala Ile Phe Tyr Phe Arg Ile Met Pro Thr Glu Lys Glu Pro Ala Arg
450 455 460

Ser Thr Pro Lys Ile Leu Ala Leu Cys Phe Ala Met Leu Gly Phe Leu
465 470 475 480

Leu Met Thr Met Ser Leu Ser Phe Ile Ile Ile Asp Trp Ala Ser Gly
485 490 495

Thr Ser Arg His Gly Gly Asn His
500

<210> 68

<211> 145

<212> PRT

<213> Homo sapiens

<400> 68

Met Ala Thr Trp Ala Leu Leu Leu Leu Ala Ala Met Leu Leu Gly Asn
1 5 10 15

Pro Gly Leu Val Phe Ser Arg Leu Ser Pro Glu Tyr Tyr Asp Leu Ala
20 25 30

Arg Ala His Leu Arg Asp Glu Glu Lys Ser Cys Pro Cys Leu Ala Gln
35 40 45

Glu Gly Pro Gln Gly Asp Leu Leu Thr Lys Thr Gln Glu Leu Gly Arg
50 55 60

Asp Tyr Arg Thr Cys Leu Thr Ile Val Gln Lys Leu Lys Lys Met Val
65 70 75 80

Asp Lys Pro Thr Gln Arg Ser Val Ser Asn Ala Ala Thr Arg Val Cys
85 90 95

Arg Thr Gly Arg Ser Arg Trp Arg Asp Val Cys Arg Asn Phe Met Arg
100 105 110

Arg Tyr Gln Ser Arg Val Ile Gln Gly Leu Val Ala Gly Glu Thr Ala
115 120 125

Gln Gln Ile Cys Glu Asp Leu Arg Leu Cys Ile Pro Ser Thr Gly Pro
130 135 140

Leu

004049 060

145

<210> 69
<211> 128
<212> PRT
<213> Homo sapiens

<400> 69

Met	Trp	Ser	Thr	Arg	Ser	Pro	Asn	Ser	Thr	Ala	Trp	Pro	Leu	Ser	Leu
1				5					10					15	
Glu	Pro	Asp	Pro	Gly	Met	Ala	Ser	Ala	Ser	Thr	Thr	Met	His	Thr	Thr
			20					25					30		
Thr	Ile	Ala	Glu	Pro	Asp	Pro	Gly	Met	Ser	Gly	Trp	Pro	Asp	Gly	Arg
		35					40					45			
Met	Glu	Thr	Ser	Thr	Pro	Thr	Ile	Met	Asp	Ile	Val	Val	Ile	Ala	Gly
	50					55					60				
Val	Ile	Ala	Ala	Val	Ala	Ile	Val	Leu	Val	Ser	Leu	Leu	Phe	Val	Met
65					70					75					80
Leu	Arg	Tyr	Met	Tyr	Arg	His	Lys	Gly	Thr	Tyr	His	Thr	Asn	Glu	Ala
				85					90					95	
Lys	Gly	Thr	Glu	Phe	Ala	Glu	Ser	Ala	Asp	Ala	Ala	Leu	Gln	Gly	Asp
			100					105					110		
Pro	Ala	Leu	Gln	Asp	Ala	Gly	Asp	Ser	Ser	Arg	Lys	Glu	Tyr	Phe	Ile
		115					120					125			

<210> 70
<211> 4861
<212> PRT
<213> Homo sapiens

<400> 70

Met	Ala	Thr	Met	Ile	Pro	Pro	Val	Lys	Leu	Lys	Trp	Leu	Glu	His	Leu
1				5					10					15	
Asn	Ser	Ser	Trp	Ile	Thr	Glu	Asp	Ser	Glu	Ser	Ile	Ala	Thr	Arg	Glu
			20					25					30		
Gly	Val	Ala	Val	Leu	Tyr	Ser	Lys	Leu	Val	Ser	Asn	Lys	Glu	Val	Val
		35					40					45			
Pro	Leu	Pro	Gln	Gln	Val	Leu	Cys	Leu	Lys	Gly	Pro	Gln	Leu	Pro	Asp
	50					55					60				
Phe	Glu	Arg	Glu	Ser	Leu	Ser	Ser	Asp	Glu	Gln	Asp	His	Tyr	Leu	Asp
65					70					75					80
Ala	Leu	Leu	Ser	Ser	Gln	Leu	Ala	Leu	Ala	Lys	Met	Val	Cys	Ser	Asp
				85					90					95	
Ser	Pro	Phe	Ala	Gly	Ala	Leu	Arg	Lys	Arg	Leu	Leu	Val	Leu	Gln	Arg
			100					105					110		

Val	Phe	Tyr	Ala	Leu	Ser	Asn	Lys	Tyr	His	Asp	Lys	Gly	Lys	Val	Lys		
		115					120					125					
Gln	Gln	Gln	His	Ser	Pro	Glu	Ser	Ser	Ser	Gly	Ser	Ala	Asp	Val	His		
		130				135					140						
Ser	Val	Ser	Glu	Arg	Pro	Arg	Ser	Ser	Thr	Asp	Ala	Leu	Ile	Glu	Met		
145					150					155					160		
Gly	Val	Arg	Thr	Gly	Leu	Ser	Leu	Leu	Phe	Ala	Leu	Leu	Arg	Gln	Ser		
				165					170					175			
Trp	Met	Met	Pro	Val	Ser	Gly	Pro	Gly	Leu	Ser	Leu	Cys	Asn	Asp	Val		
			180					185					190				
Ile	His	Thr	Ala	Ile	Glu	Val	Val	Ser	Ser	Leu	Pro	Pro	Leu	Ser	Leu		
		195					200						205				
Ala	Asn	Glu	Ser	Lys	Ile	Pro	Pro	Met	Gly	Leu	Asp	Cys	Leu	Ser	Gln		
		210				215					220						
Val	Thr	Thr	Phe	Leu	Lys	Gly	Val	Thr	Ile	Pro	Asn	Ser	Gly	Ala	Asp		
225					230					235					240		
Thr	Leu	Gly	Arg	Arg	Leu	Ala	Ser	Glu	Leu	Leu	Leu	Gly	Leu	Ala	Ala		
				245					250					255			
Gln	Arg	Gly	Ser	Leu	Arg	Tyr	Leu	Leu	Glu	Trp	Ile	Glu	Met	Ala	Leu		
			260				265						270				
Gly	Ala	Ser	Ala	Val	Val	His	Thr	Met	Glu	Lys	Gly	Lys	Leu	Leu	Ser		
		275					280					285					
Ser	Gln	Glu	Gly	Met	Ile	Ser	Phe	Asp	Cys	Phe	Met	Thr	Ile	Leu	Met		
		290			295						300						
Gln	Met	Arg	Arg	Ser	Leu	Gly	Ser	Ser	Ala	Asp	Arg	Ser	Gln	Trp	Arg		
305				310						315					320		
Glu	Pro	Thr	Arg	Thr	Ser	Asp	Gly	Leu	Cys	Ser	Leu	Tyr	Glu	Ala	Ala		
				325					330					335			
Leu	Cys	Leu	Phe	Glu	Glu	Val	Cys	Arg	Met	Ala	Ser	Asp	Tyr	Ser	Arg		
			340					345					350				
Thr	Cys	Ala	Ser	Pro	Asp	Ser	Ile	Gln	Thr	Gly	Asp	Ala	Pro	Ile	Val		
		355					360					365					
Ser	Glu	Thr	Cys	Glu	Val	Tyr	Val	Trp	Gly	Ser	Asn	Ser	Ser	His	Gln		
		370			375						380						
Leu	Val	Glu	Gly	Thr	Gln	Glu	Lys	Ile	Leu	Gln	Pro	Lys	Leu	Ala	Pro		
385					390					395					400		
Ser	Phe	Ser	Asp	Ala	Gln	Thr	Ile	Glu	Ala	Gly	Gln	Tyr	Cys	Thr	Phe		
				405					410					415			
Val	Ile	Ser	Thr	Asp	Gly	Ser	Val	Arg	Ala	Cys	Gly	Lys	Gly	Ser	Tyr		
			420				425						430				

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Gly	Arg	Leu	Gly	Leu	Gly	Asp	Ser	Asn	Asn	Gln	Ser	Thr	Leu	Lys	Lys
		435					440					445			
Leu	Thr	Phe	Glu	Pro	His	Arg	Ser	Ile	Lys	Lys	Val	Ser	Ser	Ser	Lys
	450					455					460				
Gly	Ser	Asp	Gly	His	Thr	Leu	Ala	Phe	Thr	Thr	Glu	Gly	Glu	Val	Phe
465					470					475					480
Ser	Trp	Gly	Asp	Gly	Asp	Tyr	Gly	Lys	Leu	Gly	His	Gly	Asn	Ser	Ser
				485					490					495	
Thr	Gln	Lys	Tyr	Pro	Lys	Leu	Ile	Gln	Gly	Pro	Leu	Gln	Gly	Lys	Val
			500					505					510		
Val	Val	Cys	Val	Ser	Ala	Gly	Tyr	Arg	His	Ser	Ala	Ala	Val	Thr	Glu
		515					520					525			
Asp	Gly	Glu	Leu	Tyr	Thr	Trp	Gly	Glu	Gly	Asp	Phe	Gly	Arg	Leu	Gly
	530					535					540				
His	Gly	Asp	Ser	Asn	Ser	Arg	Asn	Ile	Pro	Thr	Leu	Val	Lys	Asp	Ile
545					550					555					560
Ser	Asn	Val	Gly	Glu	Val	Ser	Cys	Gly	Ser	Ser	His	Thr	Ile	Ala	Leu
				565					570					575	
Ser	Lys	Asp	Gly	Arg	Thr	Val	Trp	Ser	Phe	Gly	Gly	Gly	Asp	Asn	Gly
			580					585					590		
Lys	Leu	Gly	His	Gly	Asp	Thr	Asn	Arg	Val	Tyr	Lys	Pro	Lys	Val	Ile
		595					600					605			
Glu	Ala	Leu	Gln	Gly	Met	Phe	Ile	Arg	Lys	Val	Cys	Ala	Gly	Ser	Gln
	610					615					620				
Ser	Ser	Leu	Ala	Leu	Thr	Ser	Thr	Gly	Gln	Val	Tyr	Ala	Trp	Gly	Cys
625					630					635					640
Gly	Ala	Cys	Leu	Gly	Cys	Gly	Ser	Ser	Glu	Ala	Thr	Ala	Leu	Arg	Pro
				645					650					655	
Lys	Leu	Ile	Glu	Glu	Leu	Ala	Ala	Thr	Arg	Ile	Val	Asp	Val	Ser	Ile
			660					665					670		
Gly	Asp	Ser	His	Cys	Leu	Ala	Leu	Ser	His	Asp	Asn	Glu	Val	Tyr	Ala
		675					680					685			
Trp	Gly	Asn	Asn	Ser	Met	Gly	Gln	Cys	Gly	Gln	Gly	Asn	Ser	Thr	Gly
	690					695					700				
Pro	Ile	Thr	Lys	Pro	Lys	Lys	Val	Ser	Gly	Leu	Asp	Gly	Ile	Ala	Ile
705					710					715					720
Gln	Gln	Ile	Ser	Ala	Gly	Thr	Ser	His	Ser	Leu	Ala	Trp	Thr	Ala	Leu
				725					730					735	
Pro	Arg	Asp	Arg	Gln	Val	Val	Ala	Trp	His	Arg	Pro	Tyr	Cys	Val	Asp
			740					745					750		

Leu	Glu	Glu	Ser	Thr	Phe	Ser	His	Leu	Arg	Ser	Phe	Leu	Glu	Arg	Tyr
		755						760				765			
Cys	Asp	Lys	Ile	Asn	Ser	Glu	Ile	Pro	Pro	Leu	Pro	Phe	Pro	Ser	Ser
	770					775					780				
Arg	Glu	His	His	Ser	Phe	Leu	Lys	Leu	Cys	Leu	Lys	Leu	Leu	Ser	Asn
785					790					795					800
His	Leu	Ala	Leu	Ala	Leu	Ala	Gly	Gly	Val	Ala	Thr	Ser	Ile	Leu	Gly
				805					810					815	
Arg	Gln	Ala	Gly	Pro	Leu	Arg	Asn	Leu	Leu	Phe	Arg	Leu	Met	Asp	Ser
			820					825					830		
Thr	Val	Pro	Asp	Glu	Ile	Gln	Glu	Val	Val	Ile	Glu	Thr	Leu	Ser	Val
		835					840					845			
Gly	Ala	Thr	Met	Leu	Leu	Pro	Pro	Leu	Arg	Glu	Arg	Met	Glu	Leu	Leu
	850					855					860				
His	Ser	Leu	Leu	Pro	Gln	Gly	Pro	Asp	Arg	Trp	Glu	Ser	Leu	Ser	Lys
865					870					875					880
Gly	Gln	Arg	Met	Gln	Leu	Asp	Ile	Ile	Leu	Thr	Ser	Leu	Gln	Asp	His
				885					890					895	
Thr	His	Val	Ala	Ser	Leu	Leu	Gly	Tyr	Ser	Ser	Pro	Ser	Asp	Ala	Ala
			900					905					910		
Asp	Leu	Ser	Ser	Val	Cys	Thr	Gly	Tyr	Gly	Asn	Leu	Ser	Asp	Gln	Pro
		915					920					925			
Tyr	Gly	Thr	Gln	Ser	Cys	His	Pro	Asp	Thr	His	Leu	Ala	Glu	Ile	Leu
	930					935					940				
Met	Lys	Thr	Leu	Leu	Arg	Asn	Leu	Gly	Phe	Tyr	Thr	Asp	Gln	Ala	Phe
945					950					955					960
Gly	Glu	Leu	Glu	Lys	Asn	Ser	Asp	Lys	Phe	Leu	Leu	Gly	Thr	Ser	Ser
				965					970					975	
Ser	Glu	Asn	Ser	Gln	Pro	Ala	His	Leu	His	Glu	Leu	Leu	Cys	Ser	Leu
			980					985					990		
Gln	Lys	Gln	Leu	Leu	Ala	Phe	Cys	His	Ile	Asn	Asn	Ile	Ser	Glu	Asn
		995					1000					1005			
Ser	Ser	Ser	Val	Ala	Leu	Leu	His	Lys	His	Leu	Gln	Leu	Leu	Leu	
	1010					1015					1020				
Pro	His	Ala	Thr	Asp	Ile	Tyr	Ser	Arg	Ser	Ala	Asn	Leu	Leu	Lys	
	1025					1030					1035				
Glu	Ser	Pro	Trp	Asn	Gly	Ser	Val	Gly	Glu	Lys	Leu	Arg	Asp	Val	
	1040					1045					1050				
Ile	Tyr	Val	Ser	Ala	Ala	Gly	Ser	Met	Leu	Cys	Gln	Ile	Val	Asn	
	1055					1060					1065				

Ser	Leu	Leu	Leu	Leu	Pro	Val	Ser	Val	Ala	Arg	Pro	Leu	Leu	Ser
1070						1075					1080			
Tyr	Leu	Leu	Asp	Leu	Leu	Pro	Pro	Leu	Asp	Cys	Leu	Asn	Arg	Leu
1085						1090					1095			
Leu	Pro	Ala	Ala	Asp	Leu	Leu	Glu	Asp	Gln	Glu	Leu	Gln	Trp	Pro
1100						1105					1110			
Leu	His	Gly	Gly	Pro	Glu	Leu	Ile	Asp	Pro	Ala	Gly	Leu	Pro	Leu
1115						1120					1125			
Pro	Gln	Pro	Ala	Gln	Ser	Trp	Val	Trp	Leu	Val	Asp	Leu	Glu	Arg
1130						1135					1140			
Thr	Ile	Ala	Leu	Leu	Ile	Gly	Arg	Cys	Leu	Gly	Gly	Met	Leu	Gln
1145						1150					1155			
Gly	Ser	Pro	Val	Ser	Pro	Glu	Glu	Gln	Asp	Thr	Ala	Tyr	Trp	Met
1160						1165					1170			
Lys	Thr	Pro	Leu	Phe	Ser	Asp	Gly	Val	Glu	Met	Asp	Thr	Pro	Gln
1175						1180					1185			
Leu	Asp	Lys	Cys	Met	Ser	Cys	Leu	Leu	Glu	Val	Ala	Leu	Ser	Gly
1190						1195					1200			
Asn	Glu	Glu	Gln	Lys	Pro	Phe	Asp	Tyr	Lys	Leu	Arg	Pro	Glu	Ile
1205						1210					1215			
Ala	Val	Tyr	Val	Asp	Leu	Ala	Leu	Gly	Cys	Ser	Lys	Glu	Pro	Ala
1220						1225					1230			
Arg	Ser	Leu	Trp	Ile	Ser	Met	Gln	Asp	Tyr	Ala	Val	Ser	Lys	Asp
1235						1240					1245			
Trp	Asp	Ser	Ala	Thr	Leu	Ser	Asn	Glu	Ser	Leu	Leu	Asp	Thr	Val
1250						1255					1260			
Ser	Arg	Phe	Val	Leu	Ala	Ala	Leu	Leu	Lys	His	Thr	Asn	Leu	Leu
1265						1270					1275			
Ser	Gln	Ala	Cys	Gly	Glu	Ser	Arg	Tyr	Gln	Pro	Gly	Lys	His	Leu
1280						1285					1290			
Ser	Glu	Val	Tyr	Arg	Cys	Val	Tyr	Lys	Val	Arg	Ser	Arg	Leu	Leu
1295						1300					1305			
Ala	Cys	Lys	Asn	Leu	Glu	Leu	Ile	Gln	Thr	Arg	Ser	Ser	Ser	Arg
1310						1315					1320			
Asp	Arg	Trp	Ile	Ser	Glu	Asn	Gln	Asp	Ser	Ala	Asp	Val	Asp	Pro
1325						1330					1335			
Gln	Glu	His	Ser	Phe	Thr	Arg	Thr	Ile	Asp	Glu	Glu	Ala	Glu	Met
1340						1345					1350			
Glu	Glu	Gln	Ala	Glu	Arg	Asp	Arg	Glu	Glu	Gly	His	Pro	Glu	Pro
1355						1360					1365			

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Glu Asp	Glu Glu Glu Glu	Arg	Glu His Glu Val	Met	Thr Ala Gly
1370		1375		1380	
Lys Ile	Phe Gln Cys Phe	Leu	Ser Ala Arg Glu	Val	Ala Arg Ser
1385		1390		1395	
Arg Asp	Arg Asp Arg Met	Asn	Ser Gly Ala Gly	Ser	Gly Ala Arg
1400		1405		1410	
Ala Asp	Asp Pro Pro Pro	Gln	Ser Gln Gln Glu	Arg	Arg Val Ser
1415		1420		1425	
Thr Asp	Leu Pro Glu Gly	Gln	Asp Val Tyr Thr	Ala	Ala Cys Asn
1430		1435		1440	
Ser Val	Ile His Arg Cys	Ala	Leu Leu Ile Leu	Gly	Val Ser Pro
1445		1450		1455	
Val Ile	Asp Glu Leu Gln	Lys	Arg Arg Glu Glu	Gly	Gln Leu Gln
1460		1465		1470	
Gln Pro	Ser Thr Ser Ala	Ser	Glu Gly Gly Gly	Leu	Met Thr Arg
1475		1480		1485	
Ser Glu	Ser Leu Thr Ala	Glu	Ser Arg Leu Val	His	Thr Ser Pro
1490		1495		1500	
Asn Tyr	Arg Leu Ile Lys	Ser	Arg Ser Glu Ser	Asp	Leu Ser Gln
1505		1510		1515	
Pro Glu	Ser Asp Glu Glu	Gly	Tyr Ala Leu Ser	Gly	Arg Gln Asn
1520		1525		1530	
Val Asp	Leu Asp Leu Ala	Ala	Ser His Arg Lys	Arg	Gly Pro Met
1535		1540		1545	
His Ser	Gln Leu Glu Ser	Leu	Ser Asp Ser Trp	Ala	Arg Leu Lys
1550		1555		1560	
His Ser	Arg Asp Trp Leu	Cys	Asn Ser Ser Tyr	Ser	Phe Glu Ser
1565		1570		1575	
Asp Phe	Asp Leu Thr Lys	Ser	Leu Gly Val His	Thr	Leu Ile Glu
1580		1585		1590	
Asn Val	Val Ser Phe Val	Ser	Gly Asp Val Gly	Asn	Ala Pro Gly
1595		1600		1605	
Phe Lys	Glu Pro Glu Glu	Ser	Met Ser Thr Ser	Pro	Gln Ala Ser
1610		1615		1620	
Ile Ile	Ala Met Glu Gln	Gln	Gln Leu Arg Ala	Glu	Leu Arg Leu
1625		1630		1635	
Glu Ala	Leu His Gln Ile	Leu	Val Leu Leu Ser	Gly	Met Glu Glu
1640		1645		1650	
Lys Gly	Ser Ile Ser Leu	Ala	Gly Ser Arg Leu	Ser	Ser Gly Phe
1655		1660		1665	

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Gln Ser	Ser Thr	Leu Leu	Thr	Ser Val	Arg Leu	Gln	Phe Leu	Ala	
1670			1675			1680			
Gly Cys	Phe Gly	Leu Gly	Thr	Val Gly	His Thr	Gly	Ala Lys	Gly	
1685			1690			1695			
Glu Ser	Gly Arg	Leu His	His	Tyr Gln	Asp Gly	Ile	Arg Ala	Ala	
1700			1705			1710			
Lys Arg	Asn Ile	Gln Ile	Glu	Ile Gln	Val Ala	Val	His Lys	Ile	
1715			1720			1725			
Tyr Gln	Gln Leu	Ser Ala	Thr	Leu Glu	Arg Ala	Leu	Gln Ala	Asn	
1730			1735			1740			
Lys His	His Ile	Glu Ala	Gln	Gln Arg	Leu Leu	Leu	Val Thr	Val	
1745			1750			1755			
Phe Ala	Leu Ser	Val His	Tyr	Gln Pro	Val Asp	Val	Ser Leu	Ala	
1760			1765			1770			
Ile Ser	Thr Gly	Leu Leu	Asn	Val Leu	Ser Gln	Leu	Cys Gly	Thr	
1775			1780			1785			
Asp Thr	Met Leu	Gly Gln	Pro	Leu Gln	Leu Leu	Pro	Lys Thr	Gly	
1790			1795			1800			
Val Ser	Gln Leu	Ser Thr	Ala	Leu Lys	Val Ala	Ser	Thr Arg	Leu	
1805			1810			1815			
Leu Gln	Ile Leu	Ala Ile	Thr	Thr Gly	Thr Tyr	Ala	Asp Lys	Leu	
1820			1825			1830			
Ser Pro	Lys Val	Val Gln	Ser	Leu Leu	Asp Leu	Leu	Cys Ser	Gln	
1835			1840			1845			
Leu Lys	Asn Leu	Leu Ser	Gln	Thr Gly	Val Leu	His	Met Ala	Ser	
1850			1855			1860			
Phe Gly	Glu Gly	Glu Gln	Glu	Asp Gly	Glu Glu	Glu	Glu Lys	Lys	
1865			1870			1875			
Val Asp	Ser Ser	Gly Glu	Thr	Glu Lys	Lys Asp	Phe	Arg Ala	Ala	
1880			1885			1890			
Leu Arg	Lys Gln	His Ala	Ala	Glu Leu	His Leu	Gly	Asp Phe	Leu	
1895			1900			1905			
Val Phe	Leu Arg	Arg Val	Val	Ser Ser	Lys Ala	Ile	Gln Ser	Lys	
1910			1915			1920			
Met Ala	Ser Pro	Lys Trp	Thr	Glu Val	Leu Leu	Asn	Ile Ala	Ser	
1925			1930			1935			
Gln Lys	Cys Ser	Ser Gly	Ile	Pro Leu	Val Gly	Asn	Leu Arg	Thr	
1940			1945			1950			
Arg Leu	Leu Ala	Leu His	Val	Leu Glu	Ala Val	Leu	Pro Ala	Cys	
1955			1960			1965			

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Glu Ser Gly Val Glu Asp Asp	Gln Met Ala Gln Ile	Val Glu Arg
1970	1975	1980
Leu Phe Ser Leu Leu Ser Asp	Cys Met Trp Glu Thr	Pro Ile Ala
1985	1990	1995
Gln Ala Lys His Ala Ile Gln	Ile Lys Glu Lys Glu	Gln Glu Ile
2000	2005	2010
Lys Leu Gln Lys Gln Gly Glu	Leu Glu Glu Glu Asp	Glu Asn Leu
2015	2020	2025
Pro Ile Gln Glu Val Ser Phe	Asp Pro Glu Lys Ala	Gln Cys Cys
2030	2035	2040
Leu Val Glu Asn Gly Gln Ile	Leu Thr His Gly Ser	Gly Gly Lys
2045	2050	2055
Gly Tyr Gly Leu Ala Ser Thr	Gly Val Thr Ser Gly	Cys Tyr Gln
2060	2065	2070
Trp Lys Phe Tyr Ile Val Lys	Glu Asn Arg Gly Asn	Glu Gly Thr
2075	2080	2085
Cys Val Gly Val Ser Arg Trp	Pro Val His Asp Phe	Asn His Arg
2090	2095	2100
Thr Thr Ser Asp Met Trp Leu	Tyr Arg Ala Tyr Ser	Gly Asn Leu
2105	2110	2115
Tyr His Asn Gly Glu Gln Thr	Leu Thr Leu Ser Ser	Phe Thr Gln
2120	2125	2130
Gly Asp Phe Ile Thr Cys Val	Leu Asp Met Glu Ala	Arg Thr Ile
2135	2140	2145
Ser Phe Gly Lys Asn Gly Glu	Glu Pro Lys Leu Ala	Phe Glu Asp
2150	2155	2160
Val Asp Ala Ala Glu Leu Tyr	Pro Cys Val Met Phe	Tyr Ser Ser
2165	2170	2175
Asn Pro Gly Glu Lys Val Lys	Ile Cys Asp Met Gln	Met Arg Gly
2180	2185	2190
Thr Pro Arg Asp Leu Leu Pro	Gly Asp Pro Ile Cys	Ser Pro Val
2195	2200	2205
Ala Ala Val Leu Ala Glu Ala	Thr Ile Gln Leu Val	Arg Ile Leu
2210	2215	2220
His Arg Thr Asp Arg Trp Thr	Tyr Cys Ile Asn Lys	Lys Met Met
2225	2230	2235
Glu Arg Leu His Lys Ile Lys	Ile Cys Ile Lys Glu	Ser Gly Gln
2240	2245	2250
Lys Leu Lys Lys Ser Arg Ser	Val Gln Ser Arg Glu	Glu Asn Glu
2255	2260	2265

03497-0340

Met	Arg	Glu	Glu	Lys	Glu	Ser	Lys	Glu	Glu	Glu	Lys	Gly	Lys	His
2270						2275					2280			
Thr	Arg	His	Gly	Leu	Ala	Asp	Leu	Ser	Glu	Leu	Gln	Leu	Arg	Thr
2285						2290					2295			
Leu	Cys	Ile	Glu	Val	Trp	Pro	Val	Leu	Ala	Val	Ile	Gly	Gly	Val
2300						2305					2310			
Asp	Ala	Gly	Leu	Arg	Val	Gly	Gly	Arg	Cys	Val	His	Lys	Gln	Thr
2315						2320					2325			
Gly	Arg	His	Ala	Thr	Leu	Leu	Gly	Val	Val	Lys	Glu	Gly	Ser	Thr
2330						2335					2340			
Ser	Ala	Lys	Val	Gln	Trp	Asp	Glu	Ala	Glu	Ile	Thr	Ile	Ser	Phe
2345						2350					2355			
Pro	Thr	Phe	Trp	Ser	Pro	Ser	Asp	Thr	Pro	Leu	Tyr	Asn	Leu	Glu
2360						2365					2370			
Pro	Cys	Glu	Pro	Leu	Pro	Phe	Asp	Val	Ala	Arg	Phe	Arg	Gly	Leu
2375						2380					2385			
Thr	Ala	Ser	Val	Leu	Leu	Asp	Leu	Thr	Tyr	Leu	Thr	Gly	Val	His
2390						2395					2400			
Glu	Asp	Met	Gly	Lys	Gln	Ser	Thr	Lys	Arg	His	Glu	Lys	Lys	His
2405						2410					2415			
Arg	His	Glu	Ser	Glu	Glu	Lys	Gly	Asp	Val	Glu	Gln	Lys	Pro	Glu
2420						2425					2430			
Ser	Glu	Ser	Ala	Leu	Asp	Met	Arg	Thr	Gly	Leu	Thr	Ser	Asp	Asp
2435						2440					2445			
Val	Lys	Ser	Gln	Ser	Thr	Thr	Ser	Ser	Lys	Ser	Glu	Asn	Glu	Ile
2450						2455					2460			
Ala	Ser	Phe	Ser	Leu	Asp	Pro	Thr	Leu	Pro	Ser	Val	Glu	Ser	Gln
2465						2470					2475			
His	Gln	Ile	Thr	Glu	Gly	Lys	Arg	Lys	Asn	His	Glu	His	Met	Ser
2480						2485					2490			
Lys	Asn	His	Asp	Val	Ala	Gln	Ser	Glu	Ile	Arg	Ala	Val	Gln	Leu
2495						2500					2505			
Ser	Tyr	Leu	Tyr	Leu	Gly	Ala	Met	Lys	Ser	Leu	Ser	Ala	Leu	Leu
2510						2515					2520			
Gly	Cys	Ser	Lys	Tyr	Ala	Glu	Leu	Leu	Leu	Ile	Pro	Lys	Val	Leu
2525						2530					2535			
Ala	Glu	Asn	Gly	His	Asn	Ser	Asp	Cys	Ala	Ser	Ser	Pro	Val	Val
2540						2545					2550			
His	Glu	Asp	Val	Glu	Met	Arg	Ala	Ala	Leu	Gln	Phe	Leu	Met	Arg
2555						2560					2565			

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His	Met	Val	Lys	Arg	Ala	Val	Met	Arg	Ser	Pro	Ile	Lys	Arg	Ala
	2570					2575					2580			
Leu	Gly	Leu	Ala	Asp	Leu	Glu	Arg	Ala	Gln	Ala	Met	Ile	Tyr	Lys
	2585					2590					2595			
Leu	Val	Val	His	Gly	Leu	Leu	Glu	Asp	Gln	Phe	Gly	Gly	Lys	Ile
	2600					2605					2610			
Lys	Gln	Glu	Ile	Asp	Gln	Gln	Ala	Glu	Glu	Ser	Asp	Pro	Ala	Gln
	2615					2620					2625			
Gln	Ala	Gln	Thr	Pro	Val	Thr	Thr	Ser	Pro	Ser	Ala	Ser	Ser	Thr
	2630					2635					2640			
Thr	Ser	Phe	Met	Ser	Ser	Ser	Leu	Glu	Asp	Thr	Thr	Thr	Ala	Thr
	2645					2650					2655			
Thr	Pro	Val	Thr	Asp	Thr	Glu	Thr	Val	Pro	Ala	Ser	Glu	Ser	Pro
	2660					2665					2670			
Gly	Val	Met	Pro	Leu	Ser	Leu	Leu	Arg	Gln	Met	Phe	Ser	Ser	Tyr
	2675					2680					2685			
Pro	Thr	Thr	Thr	Val	Leu	Pro	Thr	Arg	Arg	Ala	Gln	Thr	Pro	Pro
	2690					2695					2700			
Ile	Ser	Ser	Leu	Pro	Thr	Ser	Pro	Ser	Asp	Glu	Val	Gly	Arg	Arg
	2705					2710					2715			
Gln	Ser	Leu	Thr	Ser	Pro	Asp	Ser	Gln	Ser	Ala	Arg	Pro	Ala	Asn
	2720					2725					2730			
Arg	Thr	Ala	Leu	Ser	Asp	Pro	Ser	Ser	Arg	Leu	Ser	Thr	Ser	Pro
	2735					2740					2745			
Pro	Pro	Pro	Ala	Ile	Ala	Val	Pro	Leu	Leu	Glu	Met	Gly	Phe	Ser
	2750					2755					2760			
Leu	Arg	Gln	Ile	Ala	Lys	Ala	Met	Glu	Ala	Thr	Gly	Ala	Arg	Gly
	2765					2770					2775			
Glu	Ala	Asp	Ala	Gln	Asn	Ile	Thr	Val	Leu	Ala	Met	Trp	Met	Ile
	2780					2785					2790			
Glu	His	Pro	Gly	His	Glu	Asp	Glu	Glu	Glu	Pro	Gln	Ser	Gly	Ser
	2795					2800					2805			
Thr	Ala	Asp	Ser	Arg	Pro	Gly	Ala	Ala	Val	Leu	Gly	Ser	Gly	Gly
	2810					2815					2820			
Lys	Ser	Asn	Asp	Pro	Cys	Tyr	Leu	Gln	Ser	Pro	Gly	Asp	Ile	Pro
	2825					2830					2835			
Ser	Ala	Asp	Ala	Ala	Glu	Met	Glu	Glu	Gly	Phe	Ser	Glu	Ser	Pro
	2840					2845					2850			
Asp	Asn	Leu	Asp	His	Thr	Glu	Asn	Ala	Ala	Ser	Gly	Ser	Gly	Pro
	2855					2860					2865			

Ser	Ala	Arg	Gly	Arg	Ser	Ala	Val	Thr	Arg	Arg	His	Lys	Phe	Asp
	2870					2875					2880			
Leu	Ala	Ala	Arg	Thr	Leu	Leu	Ala	Arg	Ala	Ala	Gly	Leu	Tyr	Arg
	2885					2890					2895			
Ser	Val	Gln	Ala	His	Arg	Asn	Gln	Ser	Arg	Arg	Glu	Gly	Ile	Ser
	2900					2905					2910			
Leu	Gln	Gln	Asp	Pro	Gly	Ala	Leu	Tyr	Asp	Phe	Asn	Leu	Asp	Glu
	2915					2920					2925			
Glu	Leu	Glu	Ile	Asp	Leu	Asp	Asp	Glu	Ala	Met	Glu	Ala	Met	Phe
	2930					2935					2940			
Gly	Gln	Asp	Leu	Thr	Ser	Asp	Asn	Asp	Ile	Leu	Gly	Met	Trp	Ile
	2945					2950					2955			
Pro	Glu	Val	Leu	Asp	Trp	Pro	Thr	Trp	His	Val	Cys	Glu	Ser	Glu
	2960					2965					2970			
Asp	Arg	Glu	Glu	Val	Val	Val	Cys	Glu	Leu	Cys	Glu	Cys	Ser	Val
	2975					2980					2985			
Val	Ser	Phe	Asn	Gln	His	Met	Lys	Arg	Asn	His	Pro	Gly	Cys	Gly
	2990					2995					3000			
Arg	Ser	Ala	Asn	Arg	Gln	Gly	Tyr	Arg	Ser	Asn	Gly	Ser	Tyr	Val
	3005					3010					3015			
Asp	Gly	Trp	Phe	Gly	Gly	Glu	Cys	Gly	Ser	Gly	Asn	Pro	Tyr	Tyr
	3020					3025					3030			
Leu	Leu	Cys	Gly	Thr	Cys	Arg	Glu	Lys	Tyr	Leu	Ala	Met	Lys	Thr
	3035					3040					3045			
Lys	Ser	Lys	Ser	Thr	Ser	Ser	Glu	Arg	Tyr	Lys	Gly	Gln	Ala	Pro
	3050					3055					3060			
Asp	Leu	Ile	Gly	Lys	Gln	Asp	Ser	Val	Tyr	Glu	Glu	Asp	Trp	Asp
	3065					3070					3075			
Met	Leu	Asp	Val	Asp	Glu	Asp	Glu	Lys	Leu	Thr	Gly	Glu	Glu	Glu
	3080					3085					3090			
Phe	Glu	Leu	Leu	Ala	Gly	Pro	Leu	Gly	Leu	Asn	Asp	Arg	Arg	Ile
	3095					3100					3105			
Val	Pro	Glu	Pro	Val	Gln	Phe	Pro	Asp	Ser	Asp	Pro	Leu	Gly	Ala
	3110					3115					3120			
Ser	Val	Ala	Met	Val	Thr	Ala	Thr	Asn	Ser	Met	Glu	Glu	Thr	Leu
	3125					3130					3135			
Met	Gln	Ile	Gly	Cys	His	Gly	Ser	Val	Glu	Lys	Ser	Ser	Ser	Gly
	3140					3145					3150			
Arg	Ile	Thr	Leu	Gly	Glu	Gln	Ala	Ala	Ala	Leu	Ala	Asn	Pro	His
	3155					3160					3165			

Gly	Leu	Met	Asn	Ile	Trp	Ser	Leu	Arg	Asp	Gly	Ser	Val	Leu	Gln
	3770					3775					3780			
Thr	Val	Val	Ile	Gly	Ser	Gly	Ala	Ile	Gln	Thr	Thr	Val	Trp	Ile
	3785					3790					3795			
Pro	Glu	Val	Gly	Val	Ala	Ala	Cys	Ser	Asn	Arg	Ser	Lys	Asp	Val
	3800					3805					3810			
Leu	Val	Val	Asn	Cys	Thr	Ala	Glu	Trp	Ala	Ala	Ala	Asn	His	Val
	3815					3820					3825			
Leu	Ala	Thr	Cys	Arg	Thr	Ala	Leu	Lys	Gln	Gln	Gly	Val	Leu	Gly
	3830					3835					3840			
Leu	Asn	Met	Ala	Pro	Cys	Met	Arg	Ala	Phe	Leu	Glu	Arg	Leu	Pro
	3845					3850					3855			
Met	Met	Leu	Gln	Glu	Gln	Tyr	Ala	Tyr	Glu	Lys	Pro	His	Val	Val
	3860					3865					3870			
Cys	Gly	Asp	Gln	Leu	Val	His	Ser	Pro	Tyr	Met	Gln	Cys	Leu	Ala
	3875					3880					3885			
Ser	Leu	Ala	Val	Gly	Leu	His	Leu	Asp	Gln	Leu	Leu	Cys	Asn	Pro
	3890					3895					3900			
Pro	Val	Pro	Pro	His	His	Gln	Asn	Cys	Leu	Pro	Asp	Pro	Ala	Ser
	3905					3910					3915			
Trp	Asn	Pro	Asn	Glu	Trp	Ala	Trp	Leu	Glu	Cys	Phe	Ser	Thr	Thr
	3920					3925					3930			
Ile	Lys	Ala	Ala	Glu	Ala	Leu	Thr	Asn	Gly	Ala	Gln	Phe	Pro	Glu
	3935					3940					3945			
Ser	Phe	Thr	Val	Pro	Asp	Leu	Glu	Pro	Val	Pro	Glu	Asp	Glu	Leu
	3950					3955					3960			
Val	Phe	Leu	Met	Asp	Asn	Ser	Lys	Trp	Ile	Asn	Gly	Met	Asp	Glu
	3965					3970					3975			
Gln	Ile	Met	Ser	Trp	Ala	Thr	Ser	Arg	Pro	Glu	Asp	Trp	His	Leu
	3980					3985					3990			
Gly	Gly	Lys	Cys	Asp	Val	Tyr	Leu	Trp	Gly	Ala	Gly	Arg	His	Gly
	3995					4000					4005			
Gln	Leu	Ala	Glu	Ala	Gly	Arg	Asn	Val	Met	Val	Pro	Ala	Ala	Ala
	4010					4015					4020			
Pro	Ser	Phe	Ser	Gln	Ala	Gln	Gln	Val	Ile	Cys	Gly	Gln	Asn	Cys
	4025					4030					4035			
Thr	Phe	Val	Ile	Gln	Ala	Asn	Gly	Thr	Val	Leu	Ala	Cys	Gly	Glu
	4040					4045					4050			
Gly	Ser	Tyr	Gly	Arg	Leu	Gly	Gln	Gly	Asn	Ser	Asp	Asp	Leu	His
	4055					4060					4065			

Gly Val	Ser Val	Pro Leu	Gln Leu	Gly Leu	Pro Asp	Thr Val	Pro		
4370			4375		4380				
Pro Gln	Tyr Gly	Ala Leu	Arg Glu	Val Ser	Ile His	Thr Val	Arg		
4385			4390		4395				
Ala Arg	Leu Arg	Leu Leu	Tyr His	Phe Ser	Asp Leu	Met Tyr	Ser		
4400			4405		4410				
Ser Trp	Arg Leu	Leu Asn	Leu Ser	Pro Asn	Asn Gln	Asn Ser	Thr		
4415			4420		4425				
Ser His	Tyr Asn	Ala Gly	Thr Trp	Gly Ile	Val Gln	Gly Gln	Leu		
4430			4435		4440				
Arg Pro	Leu Leu	Ala Pro	Arg Val	Tyr Thr	Leu Pro	Met Val	Arg		
4445			4450		4455				
Ser Ile	Gly Lys	Thr Met	Val Gln	Gly Lys	Asn Tyr	Gly Pro	Gln		
4460			4465		4470				
Ile Thr	Val Lys	Arg Ile	Ser Thr	Arg Gly	Arg Lys	Cys Lys	Pro		
4475			4480		4485				
Ile Phe	Val Gln	Ile Ala	Arg Gln	Val Val	Lys Leu	Asn Ala	Ser		
4490			4495		4500				
Asp Leu	Arg Leu	Pro Ser	Arg Ala	Trp Lys	Val Lys	Leu Val	Gly		
4505			4510		4515				
Glu Gly	Ala Asp	Asp Ala	Gly Gly	Val Phe	Asp Asp	Thr Ile	Thr		
4520			4525		4530				
Glu Met	Cys Gln	Glu Leu	Glu Thr	Gly Ile	Val Asp	Leu Leu	Ile		
4535			4540		4545				
Pro Ser	Pro Asn	Ala Thr	Ala Glu	Val Gly	Tyr Asn	Arg Asp	Arg		
4550			4555		4560				
Phe Leu	Phe Asn	Pro Ser	Ala Cys	Leu Asp	Glu His	Leu Met	Gln		
4565			4570		4575				
Phe Lys	Phe Leu	Gly Ile	Leu Met	Gly Val	Ala Ile	Arg Thr	Lys		
4580			4585		4590				
Lys Pro	Leu Asp	Leu His	Leu Ala	Pro Leu	Val Trp	Lys Gln	Leu		
4595			4600		4605				
Cys Cys	Val Pro	Leu Thr	Leu Glu	Asp Leu	Glu Glu	Val Asp	Leu		
4610			4615		4620				
Leu Tyr	Val Gln	Thr Leu	Asn Ser	Ile Leu	His Ile	Glu Asp	Ser		
4625			4630		4635				
Gly Ile	Thr Glu	Glu Ser	Phe His	Glu Met	Ile Pro	Leu Asp	Ser		
4640			4645		4650				
Phe Val	Gly Gln	Ser Ala	Asp Gly	Lys Met	Val Pro	Ile Ile	Pro		
4655			4660		4665				

Gly	Gly	Asn	Ser	Ile	Pro	Leu	Thr	Phe	Ser	Asn	Arg	Lys	Glu	Tyr
4670						4675					4680			
Val	Glu	Arg	Ala	Ile	Glu	Tyr	Arg	Leu	His	Glu	Met	Asp	Arg	Gln
4685						4690					4695			
Val	Ala	Ala	Val	Arg	Glu	Gly	Met	Ser	Trp	Ile	Val	Pro	Val	Pro
4700						4705					4710			
Leu	Leu	Ser	Leu	Leu	Thr	Ala	Lys	Gln	Leu	Glu	Gln	Met	Val	Cys
4715						4720					4725			
Gly	Met	Pro	Glu	Ile	Ser	Val	Glu	Val	Leu	Lys	Lys	Val	Val	Arg
4730						4735					4740			
Tyr	Arg	Glu	Val	Asp	Glu	Gln	His	Gln	Leu	Val	Gln	Trp	Phe	Trp
4745						4750					4755			
His	Thr	Leu	Glu	Glu	Phe	Ser	Asn	Glu	Glu	Arg	Val	Leu	Phe	Met
4760						4765					4770			
Arg	Phe	Val	Ser	Gly	Arg	Ser	Arg	Leu	Pro	Ala	Asn	Thr	Ala	Asp
4775						4780					4785			
Ile	Ser	Gln	Arg	Phe	Gln	Ile	Met	Lys	Val	Asp	Arg	Pro	Tyr	Asp
4790						4795					4800			
Ser	Leu	Pro	Thr	Ser	Gln	Thr	Cys	Phe	Phe	Gln	Leu	Arg	Leu	Pro
4805						4810					4815			
Pro	Tyr	Ser	Ser	Gln	Leu	Val	Met	Ala	Glu	Arg	Leu	Arg	Tyr	Ala
4820						4825					4830			
Ile	Asn	Asn	Cys	Arg	Ser	Ile	Asp	Met	Asp	Asn	Tyr	Met	Leu	Ser
4835						4840					4845			
Arg	Asn	Val	Asp	Asn	Ala	Glu	Gly	Ser	Asp	Thr	Asp	Tyr		
4850						4855					4860			

<210> 71
 <211> 292
 <212> PRT
 <213> Homo sapiens

<400> 71

Met	Ala	Ser	Ser	Met	Arg	Ser	Leu	Phe	Ser	Asp	His	Gly	Lys	Tyr	Val
1				5					10					15	
Glu	Ser	Phe	Arg	Arg	Phe	Leu	Asn	His	Ser	Thr	Glu	His	Gln	Cys	Met
			20					25					30		
Gln	Glu	Phe	Met	Asp	Lys	Lys	Leu	Pro	Gly	Ile	Ile	Gly	Arg	Ile	Gly
			35				40					45			
Asp	Thr	Lys	Ser	Glu	Ile	Lys	Ile	Leu	Ser	Ile	Gly	Gly	Gly	Ala	Gly
	50					55					60				
Glu	Ile	Asp	Leu	Gln	Ile	Leu	Ser	Lys	Val	Gln	Ala	Gln	Tyr	Pro	Gly

65		70		75		80
Val Cys Ile Asn	Asn Glu Val Val Glu	Pro Ser Ala Glu Gln Ile Ala				
	85	90		95		
Lys Tyr Lys Glu	Leu Val Ala Lys Thr Ser Asn Leu Glu	Asn Val Lys				
	100	105		110		
Phe Ala Trp His	Lys Glu Thr Ser Ser Glu Tyr Gln Ser Arg Met Leu					
	115	120		125		
Glu Lys Lys Glu	Leu Gln Lys Trp Asp Phe Ile His Met Ile Gln Met					
	130	135		140		
Leu Tyr Tyr Val	Lys Asp Ile Pro Ala Thr Leu Lys Phe Phe His Ser					
	145	150		155		160
Leu Leu Gly Thr	Asn Ala Lys Met Leu Ile Ile Val Val Ser Gly Ser					
	165	170				175
Ser Gly Trp Asp	Lys Leu Trp Lys Lys Tyr Gly Ser Arg Phe Pro Gln					
	180	185		190		
Asp Asp Leu Cys	Gln Tyr Ile Thr Ser Asp Asp Leu Thr Gln Met Leu					
	195	200		205		
Asp Asn Leu Gly	Leu Lys Tyr Glu Cys Tyr Asp Leu Leu Ser Thr Met					
	210	215		220		
Asp Ile Ser Asp	Cys Phe Ile Asp Gly Asn Glu Asn Gly Asp Leu Leu					
	225	230		235		240
Trp Asp Phe Leu	Thr Glu Thr Cys Asn Phe Asn Ala Thr Ala Pro Pro					
	245	250		255		
Asp Leu Arg Ala	Glu Leu Gly Lys Asp Leu Gln Glu Pro Glu Phe Ser					
	260	265		270		
Ala Lys Lys Glu	Gly Lys Val Leu Phe Asn Asn Thr Leu Ser Phe Ile					
	275	280		285		
Val Ile Glu Ala						
	290					

<210> 72
 <211> 481
 <212> PRT
 <213> Homo sapiens

<400> 72

Met Ala Leu Ser	Tyr Arg Val Ser Glu Leu Gln Ser Thr Ile Pro Glu
1	5 10 15
His Ile Leu Gln	Ser Thr Phe Val His Val Ile Ser Ser Asn Trp Ser
	20 25 30
Gly Leu Gln Thr	Glu Ser Ile Pro Glu Glu Met Lys Gln Ile Val Glu
	35 40 45

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Glu	Gln	Gly	Asn	Lys	Leu	His	Trp	Ala	Ala	Leu	Leu	Ile	Leu	Met	Val	
50						55					60					
Ile	Ile	Pro	Thr	Ile	Gly	Gly	Asn	Thr	Leu	Val	Ile	Leu	Ala	Val	Ser	
65					70					75					80	
Leu	Glu	Lys	Lys	Leu	Gln	Tyr	Ala	Thr	Asn	Tyr	Phe	Leu	Met	Ser	Leu	
				85					90					95		
Ala	Val	Ala	Asp	Leu	Leu	Val	Gly	Leu	Phe	Val	Met	Pro	Ile	Ala	Leu	
			100					105					110			
Leu	Thr	Ile	Met	Phe	Glu	Ala	Met	Trp	Pro	Leu	Pro	Leu	Val	Leu	Cys	
			115				120					125				
Pro	Ala	Trp	Leu	Phe	Leu	Asp	Val	Leu	Phe	Ser	Thr	Ala	Ser	Ile	Met	
			130			135						140				
His	Leu	Cys	Ala	Ile	Ser	Val	Asp	Arg	Tyr	Ile	Ala	Ile	Lys	Lys	Pro	
145					150					155					160	
Ile	Gln	Ala	Asn	Gln	Tyr	Asn	Ser	Arg	Ala	Thr	Ala	Phe	Ile	Lys	Ile	
				165					170					175		
Thr	Val	Val	Trp	Leu	Ile	Ser	Ile	Gly	Ile	Ala	Ile	Pro	Val	Pro	Ile	
			180					185					190			
Lys	Gly	Ile	Glu	Thr	Asp	Val	Asp	Asn	Pro	Asn	Asn	Ile	Thr	Cys	Val	
			195				200					205				
Leu	Thr	Lys	Glu	Arg	Phe	Gly	Asp	Phe	Met	Leu	Phe	Gly	Ser	Leu	Ala	
			210			215					220					
Ala	Phe	Phe	Thr	Pro	Leu	Ala	Ile	Met	Ile	Val	Thr	Tyr	Phe	Leu	Thr	
225					230					235					240	
Ile	His	Ala	Leu	Gln	Lys	Lys	Ala	Tyr	Leu	Val	Lys	Asn	Lys	Pro	Pro	
				245					250					255		
Gln	Arg	Leu	Thr	Trp	Leu	Thr	Val	Ser	Thr	Val	Phe	Gln	Arg	Asp	Glu	
			260					265					270			
Thr	Pro	Cys	Ser	Ser	Pro	Glu	Lys	Val	Ala	Met	Leu	Asp	Gly	Ser	Arg	
			275				280					285				
Lys	Asp	Lys	Ala	Leu	Pro	Asn	Ser	Gly	Asp	Glu	Thr	Leu	Met	Arg	Arg	
			290			295					300					
Thr	Ser	Thr	Ile	Gly	Lys	Lys	Ser	Val	Gln	Thr	Ile	Ser	Asn	Glu	Gln	
305					310					315					320	
Arg	Ala	Ser	Lys	Val	Leu	Gly	Ile	Val	Phe	Phe	Leu	Phe	Leu	Leu	Met	
				325					330					335		
Trp	Cys	Pro	Phe	Phe	Ile	Thr	Asn	Ile	Thr	Leu	Val	Leu	Cys	Asp	Ser	
			340				345						350			
Cys	Asn	Gln	Thr	Thr	Leu	Gln	Met	Leu	Leu	Glu	Ile	Phe	Val	Trp	Ile	
			355				360					365				

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Gly Tyr Val Ser Ser Gly Val Asn Pro Leu Val Tyr Thr Leu Phe Asn
370 375 380

Lys Thr Phe Arg Asp Ala Phe Gly Arg Tyr Ile Thr Cys Asn Tyr Arg
385 390 395 400

Ala Thr Lys Ser Val Lys Thr Leu Arg Lys Arg Ser Ser Lys Ile Tyr
405 410 415

Phe Arg Asn Pro Met Ala Glu Asn Ser Lys Phe Phe Lys Lys His Gly
420 425 430

Ile Arg Asn Gly Ile Asn Pro Ala Met Tyr Gln Ser Pro Met Arg Leu
435 440 445

Arg Ser Ser Thr Ile Gln Ser Ser Ser Ile Ile Leu Leu Asp Thr Leu
450 455 460

Leu Leu Thr Glu Asn Glu Gly Asp Lys Thr Glu Glu Gln Val Ser Tyr
465 470 475 480

Val

<210> 73
<211> 189
<212> PRT
<213> Homo sapiens

<400> 73

Met Ala Leu Ser Phe Ser Leu Leu Met Ala Val Leu Val Leu Ser Tyr
1 5 10 15

Lys Ser Ile Cys Ser Leu Gly Cys Asp Leu Pro Gln Thr His Ser Leu
20 25 30

Gly Asn Arg Arg Ala Leu Ile Leu Leu Ala Gln Met Gly Arg Ile Ser
35 40 45

Pro Phe Ser Cys Leu Lys Asp Arg His Asp Phe Gly Phe Pro Gln Glu
50 55 60

Glu Phe Asp Gly Asn Gln Phe Gln Lys Ala Gln Ala Ile Ser Val Leu
65 70 75 80

His Glu Met Ile Gln Gln Thr Phe Asn Leu Phe Ser Thr Lys Asp Ser
85 90 95

Ser Ala Thr Trp Glu Gln Ser Leu Leu Glu Lys Phe Ser Thr Glu Leu
100 105 110

Asn Gln Gln Leu Asn Asp Met Glu Ala Cys Val Ile Gln Glu Val Gly
115 120 125

Val Glu Glu Thr Pro Leu Met Asn Val Asp Ser Ile Leu Ala Val Lys
130 135 140

Lys Tyr Phe Gln Arg Ile Thr Leu Tyr Leu Thr Glu Lys Lys Tyr Ser
145 150 155 160

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Pro Cys Ala Trp Glu Val Val Arg Ala Glu Ile Met Arg Ser Phe Ser
165 170 175

Leu Ser Lys Ile Phe Gln Glu Arg Leu Arg Arg Lys Glu
180 185

<210> 74
<211> 153
<212> PRT
<213> Homo sapiens

<400> 74

Met Gly Lys Ile Ser Ser Leu Pro Thr Gln Leu Phe Lys Cys Cys Phe
1 5 10 15

Cys Asp Phe Leu Lys Val Lys Met His Thr Met Ser Ser Ser His Leu
20 25 30

Phe Tyr Leu Ala Leu Cys Leu Leu Thr Phe Thr Ser Ser Ala Thr Ala
35 40 45

Gly Pro Glu Thr Leu Cys Gly Ala Glu Leu Val Asp Ala Leu Gln Phe
50 55 60

Val Cys Gly Asp Arg Gly Phe Tyr Phe Asn Lys Pro Thr Gly Tyr Gly
65 70 75 80

Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Asp Glu Cys Cys
85 90 95

Phe Arg Ser Cys Asp Leu Arg Arg Leu Glu Met Tyr Cys Ala Pro Leu
100 105 110

Lys Pro Ala Lys Ser Ala Arg Ser Val Arg Ala Gln Arg His Thr Asp
115 120 125

Met Pro Lys Thr Gln Lys Glu Val His Leu Lys Asn Ala Ser Arg Gly
130 135 140

Ser Ala Gly Asn Lys Asn Tyr Arg Met
145 150

<210> 75
<211> 632
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (199)..(199)
<223> Xaa = any amino acid

<400> 75

Met Glu Thr Pro Ala Ala Ala Ala Pro Ala Gly Ser Leu Phe Pro Ser
1 5 10 15

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Phe Leu Leu Leu Ala Cys Gly Thr Leu Val Ala Ala Leu Leu Gly Ala
 20 25 30
 Ala His Arg Leu Gly Leu Phe Tyr Gln Leu Leu His Lys Val Asp Lys
 35 40 45
 Ala Ser Val Arg His Gly Gly Glu Asn Val Ala Ala Val Leu Arg Ala
 50 55 60
 His Gly Val Arg Phe Ile Phe Thr Leu Val Gly Gly His Ile Ser Pro
 65 70 75 80
 Leu Leu Val Ala Cys Glu Lys Leu Gly Ile Arg Val Val Asp Thr Arg
 85 90 95
 His Glu Val Thr Ala Val Phe Ala Ala Asp Ala Met Ala Arg Leu Ser
 100 105 110
 Gly Thr Val Gly Val Ala Ala Val Thr Ala Gly Pro Gly Leu Thr Asn
 115 120 125
 Thr Val Thr Ala Val Lys Asn Ala Gln Met Ala Gln Ser Pro Ile Leu
 130 135 140
 Leu Leu Gly Gly Ala Ala Ser Thr Leu Leu Gln Asn Arg Gly Ala Leu
 145 150 155 160
 Gln Ala Val Asp Gln Leu Ser Leu Phe Arg Pro Leu Cys Lys Phe Cys
 165 170 175
 Val Ser Val Arg Arg Val Arg Asp Ile Val Pro Thr Leu Arg Ala Ala
 180 185 190
 Met Ala Ala Ala Gln Ser Xaa Thr Pro Gly Pro Val Phe Val Glu Leu
 195 200 205
 Pro Val Asp Val Leu Tyr Pro Tyr Phe Met Val Gln Lys Glu Met Val
 210 215 220
 Pro Ala Lys Pro Pro Lys Gly Leu Val Gly Arg Val Val Ser Trp Tyr
 225 230 235 240
 Leu Glu Asn Tyr Leu Ala Asn Leu Phe Ala Gly Ala Trp Glu Pro Gln
 245 250 255
 Pro Glu Gly Pro Leu Pro Leu Asp Ile Pro Gln Ala Ser Pro Gln Gln
 260 265 270
 Val Gln Arg Cys Val Glu Ile Leu Ser Arg Ala Lys Arg Pro Leu Met
 275 280 285
 Val Leu Gly Ser Gln Ala Leu Leu Thr Pro Thr Ser Ala Asp Lys Leu
 290 295 300
 Arg Ala Ala Val Glu Thr Leu Gly Val Pro Cys Phe Leu Gly Gly Met
 305 310 315 320
 Ala Arg Gly Leu Leu Gly Arg Asn His Pro Leu His Ile Arg Glu Asn
 325 330 335

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Arg Ser Ala Ala Leu Lys Lys Ala Asp Val Ile Val Leu Ala Gly Thr
340 345 350

Val Cys Asp Phe Arg Leu Ser Tyr Gly Arg Val Leu Ser His Ser Ser
355 360 365

Lys Ile Ile Ile Val Asn Arg Asn Arg Glu Glu Met Leu Leu Asn Ser
370 375 380

Asp Ile Phe Trp Lys Pro Gln Glu Ala Val Gln Gly Asp Val Gly Ser
385 390 395 400

Phe Val Leu Lys Leu Val Glu Gly Leu Gln Gly Gln Thr Trp Ala Pro
405 410 415

Asp Trp Val Glu Glu Leu Arg Glu Ala Asp Arg Gln Lys Glu Gln Thr
420 425 430

Phe Arg Glu Lys Ala Ala Met Pro Val Ala Gln His Leu Asn Pro Val
435 440 445

Gln Val Leu Gln Leu Val Glu Glu Thr Leu Pro Asp Asn Ser Ile Leu
450 455 460

Val Val Asp Gly Gly Asp Phe Val Gly Thr Ala Ala His Leu Val Gln
465 470 475 480

Pro Arg Gly Pro Leu Arg Trp Leu Asp Pro Gly Ala Phe Gly Thr Leu
485 490 495

Gly Val Gly Ala Gly Phe Ala Leu Gly Ala Lys Leu Cys Arg Pro Asp
500 505 510

Ala Glu Val Trp Cys Leu Phe Gly Asp Gly Ala Phe Gly Tyr Ser Leu
515 520 525

Ile Glu Phe Asp Thr Phe Val Arg His Lys Ile Pro Val Met Ala Leu
530 535 540

Val Gly Asn Asp Ala Gly Trp Thr Gln Ile Ser Arg Glu Gln Val Pro
545 550 555 560

Ser Leu Gly Ser Asn Val Ala Cys Gly Leu Ala Tyr Thr Asp Tyr His
565 570 575

Lys Ala Ala Met Gly Leu Gly Ala Arg Gly Leu Leu Leu Ser Arg Glu
580 585 590

Asn Glu Asp Gln Val Val Lys Val Leu His Asp Ala Gln Gln Gln Cys
595 600 605

Arg Asp Gly His Pro Val Val Val Asn Ile Leu Ile Gly Arg Thr Asp
610 615 620

Phe Arg Asp Gly Ser Ile Ala Val
625 630

<210> 76
<211> 349
<212> PRT

091949 0310

Trp Pro Pro Phe Gln Asp Leu Pro Leu Ser Ser Ser Met Thr Pro Ala
305 310 315 320

Ser Ser Ser Ser Arg Pro Asp Arg Glu Thr Arg Ala Ser Val Ile Lys
325 330 335

Lys Thr Ser Asp Ile Thr Gln Ala Arg Val Lys Ser Cys
340 345

<210> 77

<211> 338

<212> PRT

<213> Homo sapiens

<400> 77

Met Ile Asn Ser Thr Ser Thr Gln Pro Pro Asp Glu Ser Cys Ser Gln
1 5 10 15

Asn Leu Leu Ile Thr Gln Gln Ile Ile Pro Val Leu Tyr Cys Met Val
20 25 30

Phe Ile Ala Gly Ile Leu Leu Asn Gly Val Ser Gly Trp Ile Phe Phe
35 40 45

Tyr Val Pro Ser Ser Lys Ser Phe Ile Ile Tyr Leu Lys Asn Ile Val
50 55 60

Ile Ala Asp Phe Val Met Ser Leu Thr Phe Pro Phe Lys Ile Leu Gly
65 70 75 80

Asp Ser Gly Leu Gly Pro Trp Gln Leu Asn Val Phe Val Cys Arg Val
85 90 95

Ser Ala Val Leu Phe Tyr Val Asn Met Tyr Val Ser Ile Val Phe Phe
100 105 110

Gly Leu Ile Ser Phe Asp Arg Tyr Tyr Lys Ile Val Lys Pro Leu Trp
115 120 125

Thr Ser Phe Ile Gln Ser Val Ser Tyr Ser Lys Leu Leu Ser Val Ile
130 135 140

Val Trp Met Leu Met Leu Leu Leu Ala Val Pro Asn Ile Ile Leu Thr
145 150 155 160

Asn Gln Ser Val Arg Glu Val Thr Gln Ile Lys Cys Ile Glu Leu Lys
165 170 175

Ser Glu Leu Gly Arg Lys Trp His Lys Ala Ser Asn Tyr Ile Phe Val
180 185 190

Ala Ile Phe Trp Ile Val Phe Leu Leu Leu Ile Val Phe Tyr Thr Ala
195 200 205

Ile Thr Lys Lys Ile Phe Lys Ser His Leu Lys Ser Ser Arg Asn Ser
210 215 220

Thr Ser Val Lys Lys Lys Ser Ser Arg Asn Ile Phe Ser Ile Val Phe

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Gln Ala Gln Glu Tyr Glu Ala Leu Leu Asn Ile Lys Val Lys Leu Glu
165 170 175

Ala Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Asp Gly Glu Asp Phe
180 185 190

Asn Leu Gly Asp Ala Leu Asp Ser Ser Asn Ser Met Gln Thr Ile Gln
195 200 205

Lys Thr Thr Thr Arg Arg Ile Val Asp Gly Lys Val Val Ser Glu Thr
210 215 220

Asn Asp Thr Lys Val Leu Arg His
225 230

<210> 79

<211> 483

<212> PRT

<213> Homo sapiens

<400> 79

Met Ser Ile Arg Val Thr Gln Lys Ser Tyr Lys Val Ser Thr Ser Gly
1 5 10 15

Pro Arg Ala Phe Ser Ser Arg Ser Tyr Thr Ser Gly Pro Gly Ser Arg
20 25 30

Ile Ser Ser Ser Ser Phe Ser Arg Val Gly Ser Ser Asn Phe Arg Gly
35 40 45

Gly Leu Gly Gly Gly Tyr Gly Gly Ala Ser Gly Met Gly Gly Ile Thr
50 55 60

Ala Val Thr Val Asn Gln Ser Leu Leu Ser Pro Leu Val Leu Glu Val
65 70 75 80

Asp Pro Asn Ile Gln Ala Val Arg Thr Gln Glu Lys Glu Gln Ile Lys
85 90 95

Thr Leu Asn Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu
100 105 110

Glu Gln Gln Asn Lys Met Leu Glu Thr Lys Trp Ser Leu Leu Gln Gln
115 120 125

Gln Lys Thr Ala Arg Ser Asn Met Asp Asn Met Phe Glu Ser Tyr Ile
130 135 140

Asn Asn Leu Arg Arg Gln Leu Glu Thr Leu Gly Gln Glu Lys Leu Lys
145 150 155 160

Leu Glu Ala Glu Leu Gly Asn Met Gln Gly Leu Val Glu Asp Phe Lys
165 170 175

Asn Lys Tyr Glu Asp Glu Ile Asn Lys Arg Thr Glu Met Glu Asn Glu
180 185 190

Phe Val Leu Ile Lys Lys Asp Val Asp Glu Ala Tyr Met Asn Lys Val
195 200 205

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Glu Leu Glu Ser Arg Leu Glu Gly Leu Thr Asp Glu Ile Asn Phe Leu
 210 215 220
 Arg Gln Leu Tyr Glu Glu Glu Ile Arg Glu Leu Gln Ser Gln Ile Ser
 225 230 235 240
 Asp Thr Ser Val Val Leu Ser Met Asp Asn Ser Arg Ser Leu Asp Met
 245 250 255
 Asp Ser Ile Ile Ala Glu Val Lys Ala Gln Tyr Glu Asp Ile Ala Asn
 260 265 270
 Arg Ser Arg Ala Glu Ala Glu Ser Met Tyr Gln Ile Lys Tyr Glu Glu
 275 280 285
 Leu Gln Ser Leu Ala Gly Lys His Gly Asp Asp Leu Arg Arg Thr Lys
 290 295 300
 Thr Glu Ile Ser Glu Met Asn Arg Asn Ile Ser Arg Leu Gln Ala Glu
 305 310 315 320
 Ile Glu Gly Leu Lys Gly Gln Arg Ala Ser Leu Glu Ala Ala Ile Ala
 325 330 335
 Asp Ala Glu Gln Arg Gly Glu Leu Ala Ile Lys Asp Ala Asn Ala Lys
 340 345 350
 Leu Ser Glu Leu Glu Ala Ala Leu Gln Arg Ala Lys Gln Asp Met Ala
 355 360 365
 Arg Gln Leu Arg Glu Tyr Gln Glu Leu Met Asn Val Lys Leu Ala Leu
 370 375 380
 Asp Ile Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Ser
 385 390 395 400
 Arg Leu Glu Ser Gly Met Gln Asn Met Ser Ile His Thr Lys Thr Thr
 405 410 415
 Ser Gly Tyr Ala Gly Gly Leu Ser Ser Ala Tyr Gly Gly Leu Thr Ser
 420 425 430
 Pro Gly Leu Ser Tyr Ser Leu Gly Ser Ser Phe Gly Ser Gly Ala Gly
 435 440 445
 Ser Ser Ser Phe Ser Arg Thr Ser Ser Ser Arg Ala Val Val Val Lys
 450 455 460
 Lys Ile Glu Thr Arg Asp Gly Lys Leu Val Ser Glu Ser Ser Asp Val
 465 470 475 480
 Leu Pro Lys

<210> 80
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 <212> PRT
 <213> Homo sapiens

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<400> 80

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Met Gly Pro Pro Gly Ser Pro Trp Gln Trp Val Thr Leu Leu Leu Gly
1          5          10          15

Leu Leu Leu Pro Pro Ala Ala Pro Phe Trp Leu Leu Asn Val Leu Phe
20          25          30

Pro Pro His Thr Thr Pro Lys Ala Glu Leu Ser Asn His Thr Arg Pro
35          40          45

Val Ile Leu Val Pro Gly Cys Leu Gly Asn Gln Leu Glu Ala Lys Leu
50          55          60

Asp Lys Pro Asp Val Val Asn Trp Met Cys Tyr Arg Lys Thr Glu Asp
65          70          75          80

Phe Phe Thr Ile Trp Leu Asp Leu Asn Met Phe Leu Pro Leu Gly Val
85          90          95

Asp Cys Trp Ile Asp Asn Thr Arg Val Val Tyr Asn Arg Ser Ser Gly
100         105         110

Leu Val Ser Asn Ala Pro Gly Val Gln Ile Arg Val Pro Gly Phe Gly
115         120         125

Lys Thr Tyr Ser Val Glu Tyr Leu Asp Ser Ser Lys Leu Ala Gly Tyr
130         135         140

Leu His Thr Leu Val Gln Asn Leu Val Asn Asn Gly Tyr Val Arg Asp
145         150         155         160

Glu Thr Val Arg Ala Ala Pro Tyr Asp Trp Arg Leu Glu Pro Gly Gln
165         170         175

Gln Glu Glu Tyr Tyr Arg Lys Leu Ala Gly Leu Val Glu Glu Met His
180         185         190

Ala Ala Tyr Gly Lys Pro Val Phe Leu Ile Gly His Ser Leu Gly Cys
195         200         205

Leu His Leu Leu Tyr Phe Leu Leu Arg Gln Pro Gln Ala Trp Lys Asp
210         215         220

Arg Phe Ile Asp Gly Phe Ile Ser Leu Gly Ala Pro Trp Gly Gly Ser
225         230         235         240

Ile Lys Pro Met Leu Val Leu Ala Ser Gly Asp Asn Gln Gly Ile Pro
245         250         255

Ile Met Ser Ser Ile Lys Leu Lys Glu Glu Gln Arg Ile Thr Thr Thr
260         265         270

Ser Pro Trp Met Phe Pro Ser Arg Met Ala Trp Pro Glu Asp His Val
275         280         285

Phe Ile Ser Thr Pro Ser Phe Asn Tyr Thr Gly Arg Asp Phe Gln Arg
290         295         300

Phe Phe Ala Asp Leu His Phe Glu Glu Gly Trp Tyr Met Trp Leu Gln

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001949 07101

Ser Arg Lys Lys Arg Met Ala Lys Tyr Glu Lys Ala Glu Ile Lys Glu
290 295 300

Met Gly Glu Met His Arg Glu Leu Asn Ala
305 310

<210> 83
<211> 720
<212> PRT
<213> Homo sapiens

<400> 83

Lys Ser Val Trp Lys Gly Gly Leu Arg Glu Arg Asp Pro Arg Gly Thr
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Arg Gly Gly Gly Arg Arg Gly Thr Gly Ser Gln Pro Ala Leu Cys Leu
20 25 30

Gly Ala Gly Arg Gln Glu Gly Ala Met Ala Leu Asp Gly Ile Arg Met
35 40 45

Pro Asp Gly Cys Tyr Ala Asp Gly Thr Trp Glu Leu Ser Val His Val
50 55 60

Thr Asp Leu Asn Arg Asp Ile Thr Leu Arg Val Thr Gly Glu Val His
65 70 75 80

Ile Gly Gly Val Met Leu Lys Leu Val Glu Lys Leu Asp Val Lys Lys
85 90 95

Asp Trp Ser Asp His Ala Leu Trp Trp Glu Lys Lys Arg Thr Trp Leu
100 105 110

Leu Lys Thr His Trp Thr Leu Asp Lys Tyr Gly Ile Gln Ala Asp Ala
115 120 125

Lys Leu Gln Phe Thr Pro Gln His Lys Leu Leu Arg Leu Gln Leu Pro
130 135 140

Asn Met Lys Tyr Val Lys Val Lys Val Asn Phe Ser Asp Arg Val Phe
145 150 155 160

Lys Ala Val Ser Asp Ile Cys Lys Thr Phe Asn Ile Arg His Pro Glu
165 170 175

Glu Leu Ser Leu Leu Lys Lys Pro Arg Asp Pro Thr Lys Lys Lys Lys
180 185 190

Lys Lys Leu Asp Asp Gln Ser Glu Asp Glu Ala Leu Glu Leu Glu Gly
195 200 205

Pro Leu Ile Thr Pro Gly Ser Gly Ser Ile Tyr Ser Ser Pro Gly Leu
210 215 220

Tyr Ser Lys Thr Met Thr Pro Thr Tyr Asp Ala His Asp Gly Ser Pro
225 230 235 240

Leu Ser Pro Thr Ser Ala Trp Phe Gly Asp Ser Ala Leu Ser Glu Gly

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245										250					255				
Asn	Pro	Gly	Ile	Leu	Ala	Val	Ser	Gln	Pro	Ile	Thr	Ser	Pro	Glu	Ile				
			260						265					270					
Leu	Ala	Lys	Met	Phe	Lys	Pro	Gln	Ala	Leu	Leu	Asp	Lys	Ala	Lys	Ile				
		275					280					285							
Asn	Gln	Gly	Trp	Leu	Asp	Ser	Ser	Arg	Ser	Leu	Met	Glu	Gln	Asp	Val				
		290				295					300								
Lys	Glu	Asn	Glu	Ala	Leu	Leu	Leu	Arg	Phe	Lys	Tyr	Tyr	Ser	Phe	Phe				
305					310				315						320				
Asp	Leu	Asn	Pro	Lys	Tyr	Asp	Ala	Ile	Arg	Ile	Asn	Gln	Leu	Tyr	Glu				
				325					330					335					
Gln	Ala	Lys	Trp	Ala	Ile	Leu	Leu	Glu	Glu	Ile	Glu	Cys	Thr	Glu	Glu				
			340					345					350						
Glu	Met	Met	Met	Phe	Ala	Ala	Leu	Gln	Tyr	His	Ile	Asn	Lys	Leu	Ser				
		355					360					365							
Ile	Met	Thr	Ser	Glu	Asn	His	Leu	Asn	Asn	Ser	Asp	Lys	Glu	Val	Asp				
		370				375					380								
Glu	Val	Asp	Ala	Ala	Leu	Ser	Asp	Leu	Glu	Ile	Thr	Leu	Glu	Gly	Gly				
385					390				395					400					
Lys	Thr	Ser	Thr	Ile	Leu	Gly	Asp	Ile	Thr	Ser	Ile	Pro	Glu	Leu	Ala				
				405				410						415					
Asp	Tyr	Ile	Lys	Val	Phe	Lys	Pro	Lys	Lys	Leu	Thr	Leu	Lys	Gly	Tyr				
			420					425					430						
Lys	Gln	Tyr	Trp	Cys	Thr	Phe	Lys	Asp	Thr	Ser	Ile	Ser	Cys	Tyr	Lys				
		435					440					445							
Ser	Lys	Glu	Glu	Ser	Ser	Gly	Thr	Pro	Ala	His	Gln	Met	Asn	Leu	Arg				
		450				455					460								
Gly	Cys	Glu	Val	Thr	Pro	Asp	Val	Asn	Ile	Ser	Gly	Gln	Lys	Phe	Asn				
465					470				475						480				
Ile	Lys	Leu	Leu	Ile	Pro	Val	Ala	Glu	Gly	Met	Asn	Glu	Ile	Trp	Leu				
				485				490						495					
Arg	Cys	Asp	Asn	Glu	Lys	Gln	Tyr	Ala	His	Trp	Met	Ala	Ala	Cys	Arg				
			500					505					510						
Leu	Ala	Ser	Lys	Gly	Lys	Thr	Met	Ala	Asp	Ser	Ser	Tyr	Asn	Leu	Glu				
		515					520					525							
Val	Gln	Asn	Ile	Leu	Ser	Phe	Leu	Lys	Met	Gln	His	Leu	Asn	Pro	Asp				
		530				535					540								
Pro	Gln	Leu	Ile	Pro	Glu	Gln	Ile	Thr	Thr	Asp	Ile	Thr	Pro	Glu	Cys				
545					550				555					560					
Leu	Val	Ser	Pro	Arg	Tyr	Leu	Lys	Lys	Tyr	Lys	Asn	Lys	Gln	Ile	Thr				

Tyr Pro Lys Asn Ile Lys Val Trp Glu Gly Ile Pro Glu Ser Pro Arg
 450 455 460
 Gly Ser Phe Met Gly Ser Asp Glu Val Phe Thr Tyr Phe Tyr Lys Gly
 465 470 475 480
 Asn Lys Tyr Trp Lys Phe Asn Asn Gln Lys Leu Lys Val Glu Pro Gly
 485 490 495
 Tyr Pro Lys Ser Ala Leu Arg Asp Trp Met Gly Cys Pro Ser Gly Gly
 500 505 510
 Arg Pro Asp Glu Gly Thr Glu Glu Glu Thr Glu Val Ile Ile Ile Glu
 515 520 525
 Val Asp Glu Glu Gly Gly Gly Ala Val Ser Ala Ala Ala Val Val Leu
 530 535 540
 Pro Val Leu Leu Leu Leu Leu Val Leu Ala Val Gly Leu Ala Val Phe
 545 550 555 560
 Phe Phe Arg Arg His Gly Thr Pro Arg Arg Leu Leu Tyr Cys Gln Arg
 565 570 575
 Ser Leu Leu Asp Lys Val
 580
 <210> 85
 <211> 1246
 <212> PRT
 <213> Homo sapiens
 <400> 85
 Met Leu Ala Ser Ser Ser Arg Ile Arg Ala Ala Trp Thr Arg Ala Leu
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 Leu Leu Pro Leu Leu Leu Ala Gly Pro Val Gly Cys Leu Ser Arg Gln
 20 25 30
 Glu Leu Phe Pro Phe Gly Pro Gly Gln Gly Asp Leu Glu Leu Glu Asp
 35 40 45
 Gly Asp Asp Phe Val Ser Pro Ala Leu Glu Leu Ser Gly Ala Leu Arg
 50 55 60
 Phe Tyr Asp Arg Ser Asp Ile Asp Ala Val Tyr Val Thr Thr Asn Gly
 65 70 75 80
 Ile Ile Ala Thr Ser Glu Pro Pro Ala Lys Glu Ser His Pro Gly Leu
 85 90 95
 Phe Pro Pro Thr Phe Gly Ala Val Ala Pro Phe Leu Ala Asp Leu Asp
 100 105 110
 Thr Thr Asp Gly Leu Gly Lys Val Tyr Tyr Arg Glu Asp Leu Ser Pro
 115 120 125
 Ser Ile Thr Gln Arg Ala Ala Glu Cys Val His Arg Gly Phe Pro Glu
 130 135 140

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Ile	Ser	Phe	Gln	Pro	Ser	Ser	Ala	Val	Val	Val	Thr	Trp	Glu	Ser	Val	145	150	155	160
Ala	Pro	Tyr	Gln	Gly	Pro	Ser	Arg	Asp	Pro	Asp	Gln	Lys	Gly	Lys	Arg	165	170	175	
Asn	Thr	Phe	Gln	Ala	Val	Leu	Ala	Ser	Ser	Asp	Ser	Ser	Ser	Tyr	Ala	180	185	190	
Ile	Phe	Leu	Tyr	Pro	Glu	Asp	Gly	Leu	Gln	Phe	His	Thr	Thr	Phe	Ser	195	200	205	
Lys	Lys	Glu	Asn	Asn	Gln	Val	Pro	Ala	Val	Val	Ala	Phe	Ser	Gln	Gly	210	215	220	
Ser	Val	Gly	Phe	Leu	Trp	Lys	Ser	Asn	Gly	Ala	Tyr	Asn	Ile	Phe	Ala	225	230	235	240
Asn	Asp	Arg	Glu	Ser	Ile	Glu	Asn	Leu	Ala	Lys	Ser	Ser	Asn	Ser	Gly	245	250	255	
Gln	Gln	Gly	Val	Trp	Val	Phe	Glu	Ile	Gly	Ser	Pro	Ala	Thr	Thr	Asn	260	265	270	
Gly	Val	Val	Pro	Ala	Asp	Val	Ile	Leu	Gly	Thr	Glu	Asp	Gly	Ala	Glu	275	280	285	
Tyr	Asp	Asp	Glu	Asp	Glu	Asp	Tyr	Asp	Leu	Ala	Thr	Thr	Arg	Leu	Gly	290	295	300	
Leu	Glu	Asp	Val	Gly	Thr	Thr	Pro	Phe	Ser	Tyr	Lys	Ala	Leu	Arg	Arg	305	310	315	320
Gly	Gly	Ala	Asp	Thr	Tyr	Ser	Val	Pro	Ser	Val	Leu	Ser	Pro	Arg	Arg	325	330	335	
Ala	Ala	Thr	Glu	Arg	Pro	Leu	Gly	Pro	Pro	Thr	Glu	Arg	Thr	Arg	Ser	340	345	350	
Phe	Gln	Leu	Ala	Val	Glu	Thr	Phe	His	Gln	Gln	His	Pro	Gln	Val	Ile	355	360	365	
Asp	Val	Asp	Glu	Val	Glu	Glu	Thr	Gly	Val	Val	Phe	Ser	Tyr	Asn	Thr	370	375	380	
Asp	Ser	Arg	Gln	Thr	Cys	Ala	Asn	Asn	Arg	His	Gln	Cys	Ser	Val	His	385	390	395	400
Ala	Glu	Cys	Arg	Asp	Tyr	Ala	Thr	Gly	Phe	Cys	Cys	Ser	Cys	Val	Ala	405	410	415	
Gly	Tyr	Thr	Gly	Asn	Gly	Arg	Gln	Cys	Val	Ala	Glu	Gly	Ser	Pro	Gln	420	425	430	
Arg	Val	Asn	Gly	Lys	Val	Lys	Gly	Arg	Ile	Phe	Val	Gly	Ser	Ser	Gln	435	440	445	
Val	Pro	Ile	Val	Phe	Glu	Asn	Thr	Asp	Leu	His	Ser	Tyr	Val	Val	Met	450	455	460	

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Asn	His	Gly	Arg	Ser	Tyr	Thr	Ala	Ile	Ser	Thr	Ile	Pro	Glu	Thr	Val	465	470	475	480
Gly	Tyr	Ser	Leu	Leu	Pro	Leu	Ala	Pro	Val	Gly	Gly	Ile	Ile	Gly	Trp	485	490	495	
Met	Phe	Ala	Val	Glu	Gln	Asp	Gly	Phe	Lys	Asn	Gly	Phe	Ser	Ile	Thr	500	505	510	
Gly	Gly	Glu	Phe	Thr	Arg	Gln	Ala	Glu	Val	Thr	Phe	Val	Gly	His	Pro	515	520	525	
Gly	Asn	Leu	Val	Ile	Lys	Gln	Arg	Phe	Ser	Gly	Ile	Asp	Glu	His	Gly	530	535	540	
His	Leu	Thr	Ile	Asp	Thr	Glu	Leu	Glu	Gly	Arg	Val	Pro	Gln	Ile	Pro	545	550	555	560
Phe	Gly	Ser	Ser	Val	His	Ile	Glu	Pro	Tyr	Thr	Glu	Leu	Tyr	His	Tyr	565	570	575	
Ser	Thr	Ser	Val	Ile	Thr	Ser	Ser	Ser	Thr	Arg	Glu	Tyr	Thr	Val	Thr	580	585	590	
Glu	Pro	Glu	Arg	Asp	Gly	Ala	Ser	Pro	Ser	Arg	Ile	Tyr	Thr	Tyr	Gln	595	600	605	
Trp	Arg	Gln	Thr	Ile	Thr	Phe	Gln	Glu	Cys	Val	His	Asp	Asp	Ser	Arg	610	615	620	
Pro	Ala	Leu	Pro	Ser	Thr	Gln	Gln	Leu	Ser	Val	Asp	Ser	Val	Phe	Val	625	630	635	640
Leu	Tyr	Asn	Gln	Glu	Glu	Lys	Ile	Leu	Arg	Tyr	Ala	Phe	Ser	Asn	Ser	645	650	655	
Ile	Gly	Pro	Val	Arg	Glu	Gly	Ser	Pro	Asp	Ala	Leu	Gln	Asn	Pro	Cys	660	665	670	
Tyr	Ile	Gly	Thr	His	Gly	Cys	Asp	Thr	Asn	Ala	Ala	Cys	Arg	Pro	Gly	675	680	685	
Pro	Arg	Thr	Gln	Phe	Thr	Cys	Glu	Cys	Ser	Ile	Gly	Phe	Arg	Gly	Asp	690	695	700	
Gly	Arg	Thr	Cys	Tyr	Asp	Ile	Asp	Glu	Cys	Ser	Glu	Gln	Pro	Ser	Val	705	710	715	720
Cys	Gly	Ser	His	Thr	Ile	Cys	Asn	Asn	His	Pro	Gly	Thr	Phe	Arg	Cys	725	730	735	
Glu	Cys	Val	Glu	Gly	Tyr	Gln	Phe	Ser	Asp	Glu	Gly	Thr	Cys	Val	Ala	740	745	750	
Val	Val	Asp	Gln	Arg	Pro	Ile	Asn	Tyr	Cys	Glu	Thr	Gly	Leu	His	Asn	755	760	765	
Cys	Asp	Ile	Pro	Gln	Arg	Ala	Gln	Cys	Ile	Tyr	Thr	Gly	Gly	Ser	Ser	770	775	780	

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Asn Arg Arg Ile Leu Val Gln Asp Asp Leu Gly Leu Pro Asn Gly
1100 1105 1110

Leu His Phe Asp Ala Phe Ser Ser Gln Leu Cys Trp Val Asp Ala
1115 1120 1125

Gly Thr Asn Arg Ala Glu Cys Leu Asn Pro Ser Gln Pro Ser Arg
1130 1135 1140

Arg Lys Ala Leu Glu Gly Leu Gln Tyr Pro Phe Ala Val Thr Ser
1145 1150 1155

Tyr Gly Lys Asn Leu Tyr Phe Thr Asp Trp Lys Met Asn Ser Val
1160 1165 1170

Val Ala Leu Asp Leu Ala Ile Ser Lys Glu Thr Asp Ala Phe Gln
1175 1180 1185

Pro His Lys Gln Thr Arg Leu Tyr Gly Ile Thr Thr Ala Leu Ser
1190 1195 1200

Gln Cys Pro Gln Gly His Asn Tyr Cys Ser Val Asn Asn Gly Gly
1205 1210 1215

Cys Thr His Leu Cys Leu Ala Thr Pro Gly Ser Arg Thr Cys Arg
1220 1225 1230

Cys Pro Asp Asn Thr Leu Gly Val Asp Cys Ile Glu Arg
1235 1240 1245

<210> 86

<211> 423

<212> PRT

<213> Homo sapiens

<400> 86

Met Ala Met Val Val Ser Ser Trp Arg Asp Pro Gln Asp Asp Val Ala
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Gly Gly Asn Pro Gly Gly Pro Asn Pro Ala Ala Gln Ala Ala Arg Gly
20 25 30

Gly Gly Gly Gly Ala Gly Glu Gln Gln Gln Gln Ala Gly Ser Gly Ala
35 40 45

Pro His Thr Pro Gln Thr Pro Gly Gln Pro Gly Ala Pro Ala Thr Pro
50 55 60

Gly Thr Ala Gly Asp Lys Gly Gln Gly Pro Pro Gly Ser Gly Gln Ser
65 70 75 80

Gln Gln His Ile Glu Cys Val Val Cys Gly Asp Lys Ser Ser Gly Lys
85 90 95

His Tyr Gly Gln Phe Thr Cys Glu Gly Cys Lys Ser Phe Phe Lys Arg
100 105 110

Ser Val Arg Arg Asn Leu Thr Tyr Thr Cys Arg Ala Asn Arg Asn Cys

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115					120					125						
Pro	Ile	Asp	Gln	His	His	Arg	Asn	Gln	Cys	Gln	Tyr	Cys	Arg	Leu	Lys	
130					135					140						
Lys	Cys	Leu	Lys	Val	Gly	Met	Arg	Arg	Glu	Ala	Val	Gln	Arg	Gly	Arg	
145					150					155					160	
Met	Pro	Pro	Thr	Gln	Pro	Asn	Pro	Gly	Gln	Tyr	Ala	Leu	Thr	Asn	Gly	
165					170					175						
Asp	Pro	Leu	Asn	Gly	His	Cys	Tyr	Leu	Ser	Gly	Tyr	Ile	Ser	Leu	Leu	
180					185					190						
Leu	Arg	Ala	Glu	Pro	Tyr	Pro	Thr	Ser	Arg	Tyr	Gly	Ser	Gln	Cys	Met	
195					200					205						
Gln	Pro	Asn	Asn	Ile	Met	Gly	Ile	Glu	Asn	Ile	Cys	Glu	Leu	Ala	Ala	
210					215					220						
Arg	Leu	Leu	Phe	Ser	Ala	Val	Glu	Trp	Ala	Arg	Asn	Ile	Pro	Phe	Phe	
225					230					235					240	
Pro	Asp	Leu	Gln	Ile	Thr	Asp	Gln	Val	Ser	Leu	Leu	Arg	Leu	Thr	Trp	
245					250					255						
Ser	Glu	Leu	Phe	Val	Leu	Asn	Ala	Ala	Gln	Cys	Ser	Met	Pro	Leu	His	
260					265					270						
Val	Ala	Pro	Leu	Leu	Ala	Ala	Ala	Gly	Leu	His	Ala	Ser	Pro	Met	Ser	
275					280					285						
Ala	Asp	Arg	Val	Val	Ala	Phe	Met	Asp	His	Ile	Arg	Ile	Phe	Gln	Glu	
290					295					300						
Gln	Val	Glu	Lys	Leu	Lys	Ala	Leu	His	Val	Asp	Ser	Ala	Glu	Tyr	Ser	
305					310					315					320	
Cys	Leu	Lys	Ala	Ile	Val	Leu	Phe	Thr	Ser	Asp	Ala	Cys	Gly	Leu	Ser	
325					330					335						
Asp	Ala	Ala	His	Ile	Glu	Ser	Leu	Gln	Glu	Lys	Ser	Gln	Cys	Ala	Leu	
340					345					350						
Glu	Glu	Tyr	Val	Arg	Ser	Gln	Tyr	Pro	Asn	Gln	Pro	Ser	Arg	Phe	Gly	
355					360					365						
Lys	Leu	Leu	Leu	Arg	Leu	Pro	Ser	Leu	Arg	Thr	Val	Ser	Ser	Ser	Val	
370					375					380						
Ile	Glu	Gln	Leu	Phe	Phe	Val	Arg	Leu	Val	Gly	Lys	Thr	Pro	Ile	Glu	
385					390					395					400	
Thr	Leu	Ile	Arg	Asp	Met	Leu	Leu	Ser	Gly	Ser	Ser	Phe	Asn	Trp	Pro	
405					410					415						
Tyr	Met	Ser	Ile	Gln	Cys	Ser										
420																

<211> 534
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 <213> Homo sapiens

<400> 87

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Met Ile Trp Tyr Ile Leu Ile Ile Gly Ile Leu Leu Pro Gln Ser Leu
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Ala His Pro Gly Phe Phe Thr Ser Ile Gly Gln Met Thr Asp Leu Ile
          20           25           30

His Thr Glu Lys Asp Leu Val Thr Ser Leu Lys Asp Tyr Ile Lys Ala
      35           40           45

Glu Glu Asp Lys Leu Glu Gln Ile Lys Lys Trp Ala Glu Lys Leu Asp
50           55           60

Arg Leu Thr Ser Thr Ala Thr Lys Asp Pro Glu Gly Phe Val Gly His
65           70           75           80

Pro Val Asn Ala Phe Lys Leu Met Lys Arg Leu Asn Thr Glu Trp Ser
          85           90           95

Glu Leu Glu Asn Leu Val Leu Lys Asp Met Ser Asp Gly Phe Ile Ser
          100          105          110

Asn Leu Thr Ile Gln Arg Pro Val Leu Ser Asn Asp Glu Asp Gln Val
          115          120          125

Gly Ala Ala Lys Ala Leu Leu Arg Leu Gln Asp Thr Tyr Asn Leu Asp
          130          135          140

Thr Asp Thr Ile Ser Lys Gly Asn Leu Pro Gly Val Lys His Lys Ser
145           150           155           160

Phe Leu Thr Ala Glu Asp Cys Phe Glu Leu Gly Lys Val Ala Tyr Thr
          165          170          175

Glu Ala Asp Tyr Tyr His Thr Glu Leu Trp Met Glu Gln Ala Leu Arg
          180          185          190

Gln Leu Asp Glu Gly Glu Ile Ser Thr Ile Asp Lys Val Ser Val Leu
          195          200          205

Asp Tyr Leu Ser Tyr Ala Val Tyr Gln Gln Gly Asp Leu Asp Lys Ala
          210          215          220

Leu Leu Leu Thr Lys Lys Leu Leu Glu Leu Asp Pro Glu His Gln Arg
225           230           235           240

Ala Asn Gly Asn Leu Lys Tyr Phe Glu Tyr Ile Met Ala Lys Glu Lys
          245          250          255

Asp Val Asn Lys Ser Ala Ser Asp Asp Gln Ser Asp Gln Lys Thr Thr
          260          265          270

Pro Lys Lys Lys Gly Val Ala Val Asp Tyr Leu Pro Glu Arg Gln Lys
          275          280          285

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130		135		140
Trp Tyr Ser Gly Arg Ala Thr Ser Gly Ser Glu His Gln Phe Cys Gly				
145		150		155 160
Gly Arg Leu Glu Lys Ala Gln Gly Thr Leu Thr Thr Pro Asn Trp Pro				
	165		170	175
Glu Ser Asp Tyr Pro Pro Gly Ile Ser Cys Ser Trp His Ile Ile Ala				
	180		185	190
Pro Pro Asp Gln Val Ile Ala Leu Thr Phe Glu Lys Phe Asp Leu Glu				
	195		200	205
Pro Asp Thr Tyr Cys Arg Tyr Asp Ser Val Ser Val Phe Asn Gly Ala				
	210		215	220
Val Ser Asp Asp Ser Arg Arg Leu Gly Lys Phe Cys Gly Asp Ala Val				
	225		230	235 240
Pro Gly Ser Ile Ser Ser Glu Gly Asn Glu Leu Leu Val Gln Phe Val				
	245		250	255
Ser Asp Leu Ser Val Thr Ala Asp Gly Phe Ser Ala Ser Tyr Lys Thr				
	260		265	270
Leu Pro Arg Gly Thr Ala Lys Glu Gly Gln Gly Pro Gly Pro Lys Arg				
	275		280	285
Gly Thr Glu Pro Lys Val Lys Leu Pro Pro Lys Ser Gln Pro Pro Glu				
	290		295	300
Lys Thr Glu Glu Ser Pro Ser Ala Pro Asp Ala Pro Thr Cys Pro Lys				
	305		310	315 320
Gln Cys Arg Arg Thr Gly Thr Leu Gln Ser Asn Phe Cys Ala Ser Ser				
	325		330	335
Leu Val Val Thr Ala Thr Val Lys Ser Met Val Arg Glu Pro Gly Glu				
	340		345	350
Gly Leu Ala Val Thr Val Ser Leu Ile Gly Ala Tyr Lys Thr Gly Gly				
	355		360	365
Leu Asp Leu Pro Thr Pro Pro Thr Gly Ala Ser Leu Lys Phe Tyr Val				
	370		375	380
Pro Cys Lys Gln Cys Pro Pro Met Lys Lys Gly Val Ser Tyr Leu Leu				
	385		390	395 400
Met Gly Gln Val Glu Glu Asn Arg Gly Pro Val Leu Pro Pro Glu Ser				
	405		410	415
Phe Val Val Leu His Arg Pro Asn Gln Asp Gln Ile Leu Thr Asn Leu				
	420		425	430
Ser Lys Arg Lys Cys Pro Ser Gln Pro Val Arg Ala Ala Ala Ser Gln				
	435		440	445

Asp

009194970760

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<210> 90
<211> 1089
<212> PRT
<213> Homo sapiens
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<400> 90

Met	Gly	Thr	Ser	His	Pro	Ala	Phe	Leu	Val	Leu	Gly	Cys	Leu	Leu	Thr
1				5				10						15	
Gly	Leu	Ser	Leu	Ile	Leu	Cys	Gln	Leu	Ser	Leu	Pro	Ser	Ile	Leu	Pro
			20					25					30		
Asn	Glu	Asn	Glu	Lys	Val	Val	Gln	Leu	Asn	Ser	Ser	Phe	Ser	Leu	Arg
		35					40					45			
Cys	Phe	Gly	Glu	Ser	Glu	Val	Ser	Trp	Gln	Tyr	Pro	Met	Ser	Glu	Glu
	50					55					60				
Glu	Ser	Ser	Asp	Val	Glu	Ile	Arg	Asn	Glu	Glu	Asn	Asn	Ser	Gly	Leu
65					70					75					80
Phe	Val	Thr	Val	Leu	Glu	Val	Ser	Ser	Ala	Ser	Ala	Ala	His	Thr	Gly
				85					90					95	
Leu	Tyr	Thr	Cys	Tyr	Tyr	Asn	His	Thr	Gln	Thr	Glu	Glu	Asn	Glu	Leu
			100					105					110		
Glu	Gly	Arg	His	Ile	Tyr	Ile	Tyr	Val	Pro	Asp	Pro	Asp	Val	Ala	Phe
		115					120					125			
Val	Pro	Leu	Gly	Met	Thr	Asp	Tyr	Leu	Val	Ile	Val	Glu	Asp	Asp	Asp
		130				135					140				
Ser	Ala	Ile	Ile	Pro	Cys	Arg	Thr	Thr	Asp	Pro	Glu	Thr	Pro	Val	Thr
145					150					155					160
Leu	His	Asn	Ser	Glu	Gly	Val	Val	Pro	Ala	Ser	Tyr	Asp	Ser	Arg	Gln
				165					170					175	
Gly	Phe	Asn	Gly	Thr	Phe	Thr	Val	Gly	Pro	Tyr	Ile	Cys	Glu	Ala	Thr
			180					185					190		
Val	Lys	Gly	Lys	Lys	Phe	Gln	Thr	Ile	Pro	Phe	Asn	Val	Tyr	Ala	Leu
		195					200					205			
Lys	Ala	Thr	Ser	Glu	Leu	Asp	Leu	Glu	Met	Glu	Ala	Leu	Lys	Thr	Val
	210					215					220				
Tyr	Lys	Ser	Gly	Glu	Thr	Ile	Val	Val	Thr	Cys	Ala	Val	Phe	Asn	Asn
225					230					235					240
Glu	Val	Val	Asp	Leu	Gln	Trp	Thr	Tyr	Pro	Gly	Glu	Val	Lys	Gly	Lys
				245					250					255	
Gly	Ile	Thr	Met	Leu	Glu	Glu	Ile	Lys	Val	Pro	Ser	Ile	Lys	Leu	Val
			260					265					270		

Tyr Arg Met Ala Lys Pro Asp His Ala Thr Ser Glu Val Tyr Glu Ile
915 920 925

Met Val Lys Cys Trp Asn Ser Glu Pro Glu Lys Arg Pro Ser Phe Tyr
930 935 940

His Leu Ser Glu Ile Val Glu Asn Leu Leu Pro Gly Gln Tyr Lys Lys
945 950 955 960

Ser Tyr Glu Lys Ile His Leu Asp Phe Leu Lys Ser Asp His Pro Ala
965 970 975

Val Ala Arg Met Arg Val Asp Ser Asp Asn Ala Tyr Ile Gly Val Thr
980 985 990

Tyr Lys Asn Glu Glu Asp Lys Leu Lys Asp Trp Glu Gly Gly Leu Asp
995 1000 1005

Glu Gln Arg Leu Ser Ala Asp Ser Gly Tyr Ile Ile Pro Leu Pro
1010 1015 1020

Asp Ile Asp Pro Val Pro Glu Glu Glu Asp Leu Gly Lys Arg Asn
1025 1030 1035

Arg His Ser Ser Gln Thr Ser Glu Glu Ser Ala Ile Glu Thr Gly
1040 1045 1050

Ser Ser Ser Ser Thr Phe Ile Lys Arg Glu Asp Glu Thr Ile Glu
1055 1060 1065

Asp Ile Asp Met Met Asp Asp Ile Gly Ile Asp Ser Ser Asp Leu
1070 1075 1080

Val Glu Asp Ser Phe Leu
1085

<210> 91

<211> 318

<212> PRT

<213> Homo sapiens

<400> 91

Met Pro Asn Ile Lys Ile Phe Ser Gly Ser Ser His Gln Asp Leu Ser
1 5 10 15

Gln Lys Ile Ala Asp Arg Leu Gly Leu Glu Leu Gly Lys Val Val Thr
20 25 30

Lys Lys Phe Ser Asn Gln Glu Thr Cys Val Glu Ile Gly Glu Ser Val
35 40 45

Arg Gly Glu Asp Val Tyr Ile Val Gln Ser Gly Cys Gly Glu Ile Asn
50 55 60

Asp Asn Leu Met Glu Leu Ile Met Ile Asn Ala Cys Lys Ile Ala
65 70 75 80

Ser Ala Ser Arg Val Thr Ala Val Ile Pro Cys Phe Pro Tyr Ala Arg
85 90 95

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Gln Asp Lys Lys Asp Lys Ser Arg Ala Pro Ile Ser Ala Lys Leu Val
100 105 110

Ala Asn Met Leu Ser Val Ala Gly Ala Asp His Ile Ile Thr Met Asp
115 120 125

Leu His Ala Ser Gln Ile Gln Gly Phe Phe Asp Ile Pro Val Asp Asn
130 135 140

Leu Tyr Ala Glu Pro Ala Val Leu Lys Trp Ile Arg Glu Asn Ile Ser
145 150 155 160

Glu Trp Arg Asn Cys Thr Ile Val Ser Pro Asp Ala Gly Gly Ala Lys
165 170 175

Arg Val Thr Ser Ile Ala Asp Arg Leu Asn Val Asp Phe Ala Leu Ile
180 185 190

His Lys Glu Arg Lys Lys Ala Asn Glu Val Asp Arg Met Val Leu Val
195 200 205

Gly Asp Val Lys Asp Arg Val Ala Ile Leu Val Asp Asp Met Ala Asp
210 215 220

Thr Cys Gly Thr Ile Cys His Ala Ala Asp Lys Leu Leu Ser Ala Gly
225 230 235 240

Ala Thr Arg Val Tyr Ala Ile Leu Thr His Gly Ile Phe Ser Gly Pro
245 250 255

Ala Ile Ser Arg Ile Asn Asn Ala Cys Phe Glu Ala Val Val Val Thr
260 265 270

Asn Thr Ile Pro Gln Glu Asp Lys Met Lys His Cys Ser Lys Ile Gln
275 280 285

Val Ile Asp Ile Ser Met Ile Leu Ala Glu Ala Ile Arg Arg Thr His
290 295 300

Asn Gly Glu Ser Val Ser Tyr Leu Phe Ser His Val Pro Leu
305 310 315

<210> 92
<211> 318
<212> PRT
<213> Homo sapiens

<400> 92

Met Pro Asn Ile Val Leu Phe Ser Gly Ser Ser His Gln Asp Leu Ser
1 5 10 15

Gln Arg Val Ala Asp Arg Leu Gly Leu Glu Leu Gly Lys Val Val Thr
20 25 30

Lys Lys Phe Ser Asn Gln Glu Thr Ser Val Glu Ile Gly Glu Ser Val
35 40 45

Arg Gly Glu Asp Val Tyr Ile Ile Gln Ser Gly Cys Gly Glu Ile Asn

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50	55	60
Asp Asn Leu Met Glu Leu Leu Ile Met Ile Asn Ala Cys Lys Ile Ala		
65	70	75 80
Ser Ser Ser Arg Val Thr Ala Val Ile Pro Cys Phe Pro Tyr Ala Arg		
	85	90 95
Gln Asp Lys Lys Asp Lys Ser Arg Ala Pro Ile Ser Ala Lys Leu Val		
	100	105 110
Ala Asn Met Leu Ser Val Ala Gly Ala Asp His Ile Ile Thr Met Asp		
	115	120 125
Leu His Ala Ser Gln Ile Gln Gly Phe Phe Asp Ile Pro Val Asp Asn		
	130	135 140
Leu Tyr Ala Glu Pro Ala Val Leu Gln Trp Ile Arg Glu Asn Ile Ala		
	145	150 155 160
Glu Trp Lys Asn Cys Ile Ile Val Ser Pro Asp Ala Gly Gly Ala Lys		
	165	170 175
Arg Val Thr Ser Ile Ala Asp Arg Leu Asn Val Glu Phe Ala Leu Ile		
	180	185 190
His Lys Glu Arg Lys Lys Ala Asn Glu Val Asp Arg Met Val Leu Val		
	195	200 205
Gly Asp Val Lys Asp Arg Val Ala Ile Leu Val Asp Asp Met Ala Asp		
	210	215 220
Thr Cys Gly Thr Ile Cys His Ala Ala Asp Lys Leu Leu Ser Ala Gly		
	225	230 235 240
Ala Thr Lys Val Tyr Ala Ile Leu Thr His Gly Ile Phe Ser Gly Pro		
	245	250 255
Ala Ile Ser Arg Ile Asn Asn Ala Ala Phe Glu Ala Val Val Val Thr		
	260	265 270
Asn Thr Ile Pro Gln Glu Asp Lys Met Lys His Cys Thr Lys Ile Gln		
	275	280 285
Val Ile Asp Ile Ser Met Ile Leu Ala Glu Ala Ile Arg Arg Thr His		
	290	295 300
Asn Gly Glu Ser Val Ser Tyr Leu Phe Ser His Val Pro Leu		
	305	310 315
<210> 93		
<211> 244		
<212> PRT		
<213> Homo sapiens		
<400> 93		
Met Ala Ala Ala Ala Ala Ala Gly Glu Ala Arg Arg Val Leu Val Tyr		
1	5	10 15

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Gly Gly Arg Gly Ala Leu Gly Ser Arg Cys Val Gln Ala Phe Arg Ala
20 25 30

Arg Asn Trp Trp Val Ala Ser Val Asp Val Val Glu Asn Glu Glu Ala
35 40 45

Ser Ala Thr Ile Ile Val Lys Met Thr Asp Ser Phe Thr Glu Gln Ala
50 55 60

Asp Gln Val Thr Ala Glu Val Gly Lys Leu Leu Gly Glu Glu Lys Val
65 70 75 80

Asp Ala Ile Leu Cys Val Ala Gly Gly Trp Ala Gly Gly Asn Ala Lys
85 90 95

Ser Lys Ser Leu Phe Lys Asn Cys Asp Leu Met Trp Lys Gln Ser Ile
100 105 110

Trp Thr Ser Thr Ile Ser Ser His Leu Ala Thr Lys His Leu Lys Glu
115 120 125

Gly Gly Leu Leu Thr Leu Ala Gly Ala Lys Ala Ala Leu Asp Gly Thr
130 135 140

Pro Gly Met Ile Gly Tyr Gly Met Ala Lys Gly Ala Val His Gln Leu
145 150 155 160

Cys Gln Ser Leu Ala Gly Lys Asn Ser Gly Met Pro Pro Gly Ala Ala
165 170 175

Ala Ile Ala Val Leu Pro Val Thr Leu Asp Thr Pro Met Asn Arg Lys
180 185 190

Ser Met Pro Glu Ala Asp Phe Ser Ser Trp Thr Pro Leu Glu Phe Leu
195 200 205

Val Glu Thr Phe His Asp Trp Ile Thr Gly Lys Asn Arg Pro Ser Ser
210 215 220

Gly Ser Leu Ile Gln Val Val Thr Thr Glu Gly Arg Thr Glu Leu Thr
225 230 235 240

Pro Ala Tyr Phe

<210> 94
<211> 331
<212> PRT
<213> Homo sapiens

<400> 94

Met Gly Thr Pro Gln Lys Asp Val Ile Ile Lys Ser Asp Ala Pro Asp
1 5 10 15

Thr Leu Leu Leu Glu Lys His Ala Asp Tyr Ile Ala Ser Tyr Gly Ser
20 25 30

Lys Lys Asp Asp Tyr Glu Tyr Cys Met Ser Glu Tyr Leu Arg Met Ser
35 40 45

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Gly Ile Tyr Trp Gly Leu Thr Val Met Asp Leu Met Gly Gln Leu His
50 55 60

Arg Met Asn Arg Glu Glu Ile Leu Ala Phe Ile Lys Ser Cys Gln His
65 70 75 80

Glu Cys Gly Gly Ile Ser Ala Ser Ile Gly His Asp Pro His Leu Leu
85 90 95

Tyr Thr Leu Ser Ala Val Gln Ile Leu Thr Leu Tyr Asp Ser Ile Asn
100 105 110

Val Ile Asp Val Asn Lys Val Val Glu Tyr Val Lys Gly Leu Gln Lys
115 120 125

Glu Asp Gly Ser Phe Ala Gly Asp Ile Trp Gly Glu Ile Asp Thr Arg
130 135 140

Phe Ser Phe Cys Ala Val Ala Thr Leu Ala Leu Leu Gly Lys Leu Asp
145 150 155 160

Ala Ile Asn Val Glu Lys Ala Ile Glu Phe Val Leu Ser Cys Met Asn
165 170 175

Phe Asp Gly Gly Phe Gly Cys Arg Pro Gly Ser Glu Ser His Ala Gly
180 185 190

Gln Ile Tyr Cys Cys Thr Gly Phe Leu Ala Ile Thr Ser Gln Leu His
195 200 205

Gln Val Asn Ser Asp Leu Leu Gly Trp Trp Leu Cys Glu Arg Gln Leu
210 215 220

Pro Ser Gly Gly Leu Asn Gly Arg Pro Glu Lys Leu Pro Asp Val Cys
225 230 235 240

Tyr Ser Trp Trp Val Leu Ala Ser Leu Lys Ile Ile Gly Arg Leu His
245 250 255

Trp Ile Asp Arg Glu Lys Leu Arg Asn Phe Ile Leu Ala Cys Gln Asp
260 265 270

Glu Glu Thr Gly Gly Phe Ala Asp Arg Pro Gly Asp Met Val Asp Pro
275 280 285

Phe His Thr Leu Phe Gly Ile Ala Gly Leu Ser Leu Leu Gly Glu Glu
290 295 300

Gln Ile Lys Pro Val Asn Pro Val Phe Cys Met Pro Glu Glu Val Leu
305 310 315 320

Gln Arg Val Asn Val Gln Pro Glu Leu Val Ser
325 330

<210> 95
<211> 93
<212> PRT
<213> Homo sapiens

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<400> 95

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Met Asn Ala Lys Val Val Val Val Leu Val Leu Val Leu Thr Ala Leu
1          5          10          15

Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys
          20          25          30

Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys
          35          40          45

Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys
          50          55          60

Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
65          70          75          80

Glu Tyr Leu Glu Lys Ala Leu Asn Lys Arg Phe Lys Met
          85          90

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<210> 96

<211> 381

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (59)..(59)

<223> Xaa = any amino acid

<220>

<221> UNSURE

<222> (300)..(300)

<223> Xaa = any amino acid

<220>

<221> UNSURE

<222> (318)..(318)

<223> Xaa = any amino acid

<220>

<221> UNSURE

<222> (330)..(330)

<223> Xaa = any amino acid

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<221> UNSURE

<222> (345)..(345)

<223> Xaa = any amino acid

<220>

<221> UNSURE

<222> (352)..(352)

<223> Xaa = any amino acid

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<220>
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 <222> (367)..(367)
 <223> Xaa = any amino acid

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 <222> (369)..(369)
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 <222> (376)..(376)
 <223> Xaa = any amino acid

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 <222> (378)..(378)
 <223> Xaa = any amino acid

<400> 96

Met Trp Arg Ser Leu Gly Leu Ala Leu Ala Leu Cys Leu Leu Pro Ser
 1 5 10 15

Gly Gly Thr Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro
 20 25 30

Ala Trp Ser Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser
 35 40 45

Val Thr Val Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Ile
 50 55 60

Glu Ala Ser Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly
 65 70 75 80

Tyr Ser Asn Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser
 85 90 95

Arg Leu Lys Tyr Thr His Leu Lys Asn Lys Val Ser Glu His Ile Pro
 100 105 110

Val Tyr Gln Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn
 115 120 125

Gly Ser Lys Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val
 130 135 140

Tyr His Leu Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu
 145 150 155 160

Glu Ala Ile Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser
 165 170 175

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Leu Thr Thr Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala
 180 185 190
 Thr Val Asp Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu
 195 200 205
 His His His Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser
 210 215 220
 Glu Asn Gln Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro
 225 230 235 240
 Pro Gly Leu His His His His Lys His Lys Gly Gln His Arg Gln Gly
 245 250 255
 His Pro Glu Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu
 260 265 270
 Gln Lys Lys Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys
 275 280 285
 Leu Pro Thr Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His Cys
 290 295 300
 Arg His Leu Ile Phe Glu Lys Thr Gly Ser Ala Ile Thr Xaa Gln Cys
 305 310 315 320
 Lys Glu Asn Leu Pro Ser Leu Cys Ser Xaa Gln Gly Leu Arg Ala Glu
 325 330 335
 Glu Asn Ile Thr Glu Ser Cys Gln Xaa Arg Leu Pro Pro Ala Ala Xaa
 340 345 350
 Gln Ile Ser Gln Gln Leu Ile Pro Thr Glu Ala Ser Ala Ser Xaa Arg
 355 360 365
 Xaa Lys Asn Gln Ala Lys Lys Xaa Glu Xaa Pro Ser Asn
 370 375 380
 <210> 97
 <211> 220
 <212> PRT
 <213> Homo sapiens
 <400> 97
 Met Ala Ile Leu Phe Ala Val Val Ala Arg Gly Thr Thr Ile Leu Ala
 1 5 10 15
 Lys His Ala Trp Cys Gly Gly Asn Phe Leu Glu Val Thr Glu Gln Ile
 20 25 30
 Leu Ala Lys Ile Pro Ser Glu Asn Asn Lys Leu Thr Tyr Ser His Gly
 35 40 45
 Asn Tyr Leu Phe His Tyr Ile Cys Gln Asp Arg Ile Val Tyr Leu Cys
 50 55 60
 Ile Thr Asp Asp Asp Phe Glu Arg Ser Arg Ala Phe Asn Phe Leu Asn
 65 70 75 80

Glu Ile Lys Lys Arg Phe Gln Thr Thr Tyr Gly Ser Arg Ala Gln Thr
85 90 95

Ala Leu Pro Tyr Ala Met Asn Ser Glu Phe Ser Ser Val Leu Ala Ala
100 105 110

Gln Leu Lys His His Ser Glu Asn Lys Gly Leu Asp Lys Val Met Glu
115 120 125

Thr Gln Ala Gln Val Asp Glu Leu Lys Gly Ile Met Val Arg Asn Ile
130 135 140

Asp Leu Val Ala Gln Arg Gly Glu Arg Leu Glu Leu Leu Ile Asp Lys
145 150 155 160

Thr Glu Asn Leu Val Asp Ser Ser Val Thr Phe Lys Thr Thr Ser Arg
165 170 175

Asn Leu Ala Arg Ala Met Cys Met Lys Asn Leu Lys Leu Thr Ile Ile
180 185 190

Ile Ile Ile Val Ser Ile Val Phe Ile Tyr Ile Ile Val Ser Pro Leu
195 200 205

Cys Gly Gly Phe Thr Trp Pro Ser Cys Val Lys Lys
210 215 220

<210> 98

<211> 1736

<212> PRT

<213> Homo sapiens

<400> 98

Met Glu Glu Thr Ala Ile Trp Glu Gln His Thr Val Thr Leu His Arg
1 5 10 15

Ala Pro Gly Phe Gly Phe Gly Ile Ala Ile Ser Gly Gly Arg Asp Asn
20 25 30

Pro His Phe Gln Ser Gly Glu Thr Ser Ile Val Ile Ser Asp Val Leu
35 40 45

Lys Gly Gly Pro Ala Glu Gly Gln Leu Gln Glu Asn Asp Arg Val Ala
50 55 60

Met Val Asn Gly Val Ser Met Asp Asn Val Glu His Ala Phe Ala Val
65 70 75 80

Gln Gln Leu Arg Lys Ser Gly Lys Asn Ala Lys Ile Thr Ile Arg Arg
85 90 95

Lys Lys Lys Val Gln Ile Pro Val Ser Arg Pro Asp Pro Glu Pro Val
100 105 110

Ser Asp Asn Glu Glu Asp Ser Tyr Asp Glu Glu Ile His Asp Pro Arg
115 120 125

Ser Gly Arg Ser Gly Val Val Asn Arg Arg Ser Glu Lys Ile Trp Pro

130	135	140
Arg Asp Arg Ser Ala Ser Arg Glu Arg Ser Leu Ser Pro Arg Ser Asp		
145	150	155 160
Arg Arg Ser Val Ala Ser Ser Gln Pro Ala Lys Pro Thr Lys Val Thr		
	165	170 175
Leu Val Lys Ser Arg Lys Asn Glu Glu Tyr Gly Leu Arg Leu Ala Ser		
	180	185 190
His Ile Phe Val Lys Glu Ile Ser Gln Asp Ser Leu Ala Ala Arg Asp		
	195	200 205
Gly Asn Ile Gln Glu Gly Asp Val Val Leu Lys Ile Asn Gly Thr Val		
	210	215 220
Thr Glu Asn Met Ser Leu Thr Asp Ala Lys Thr Leu Ile Glu Arg Ser		
	225	230 235 240
Lys Gly Lys Leu Lys Met Val Val Gln Arg Asp Glu Arg Ala Thr Leu		
	245	250 255
Leu Asn Val Pro Asp Leu Ser Asp Ser Ile His Ser Ala Asn Ala Ser		
	260	265 270
Glu Arg Asp Asp Ile Ser Glu Ile Gln Ser Leu Ala Ser Asp His Ser		
	275	280 285
Gly Arg Ser His Asp Arg Pro Pro Arg Arg Ser Arg Ser Arg Ser Pro		
	290	295 300
Asp Gln Arg Ser Glu Pro Ser Asp His Ser Arg His Ser Pro Gln Gln		
	305	310 315 320
Pro Ser Asn Gly Ser Leu Arg Ser Arg Asp Glu Glu Arg Ile Ser Lys		
	325	330 335
Pro Gly Ala Val Ser Thr Pro Val Lys His Ala Asp Asp His Thr Pro		
	340	345 350
Lys Thr Val Glu Glu Val Thr Val Glu Arg Asn Glu Lys Gln Thr Pro		
	355	360 365
Ser Leu Pro Glu Pro Lys Pro Val Tyr Ala Gln Val Gly Asn Gln Met		
	370	375 380
Trp Ile Tyr Leu Ser Val His Leu Met Val Ser Tyr Leu Ile Gln Leu		
	385	390 395 400
Met Lys Met Gly Phe Leu Arg Pro Ser Met Lys Leu Val Lys Phe Arg		
	405	410 415
Lys Gly Asp Ser Val Gly Leu Arg Leu Ala Gly Gly Asn Asp Val Gly		
	420	425 430
Ile Phe Val Ala Gly Val Leu Glu Asp Ser Pro Ala Ala Lys Glu Gly		
	435	440 445
Leu Glu Glu Gly Asp Gln Ile Leu Arg Val Asn Asn Val Asp Phe Thr		

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1085	1090	1095
Ser Gln Asp Leu Asp Ser Arg	Gln His Pro Glu Glu Ser Ser Glu	
1100	1105	1110
Arg Gly Tyr Phe Pro Arg Phe	Glu Glu Pro Ala Pro Leu Ser Tyr	
1115	1120	1125
Asp Ser Arg Pro Arg Tyr Glu	Gln Ala Pro Arg Ala Ser Ala Leu	
1130	1135	1140
Arg His Glu Glu Gln Pro Ala	Pro Gly Tyr Asp Thr His Gly Arg	
1145	1150	1155
Leu Arg Pro Glu Ala Gln Pro	His Pro Ser Ala Gly Pro Lys Pro	
1160	1165	1170
Ala Glu Ser Lys Gln Tyr Phe	Glu Gln Tyr Ser Arg Ser Tyr Glu	
1175	1180	1185
Gln Val Pro Pro Gln Gly Phe	Thr Ser Arg Ala Gly His Phe Glu	
1190	1195	1200
Pro Leu His Gly Ala Ala Ala	Val Pro Pro Leu Ile Pro Ser Ser	
1205	1210	1215
Gln His Lys Pro Glu Ala Leu	Pro Ser Asn Thr Lys Pro Leu Pro	
1220	1225	1230
Pro Pro Pro Thr Gln Thr Glu	Glu Glu Glu Asp Pro Ala Met Lys	
1235	1240	1245
Pro Gln Ser Val Leu Thr Arg	Val Lys Met Phe Glu Asn Lys Arg	
1250	1255	1260
Ser Ala Ser Leu Glu Thr Lys	Lys Asp Val Asn Asp Thr Gly Ser	
1265	1270	1275
Phe Lys Pro Pro Glu Val Ala	Ser Lys Pro Ser Gly Ala Pro Ile	
1280	1285	1290
Ile Gly Pro Lys Pro Thr Ser	Gln Asn Gln Phe Ser Glu His Asp	
1295	1300	1305
Lys Thr Leu Tyr Arg Ile Pro	Glu Pro Gln Lys Pro Gln Leu Lys	
1310	1315	1320
Pro Pro Glu Asp Ile Val Arg	Ser Asn His Tyr Asp Pro Glu Glu	
1325	1330	1335
Asp Glu Glu Tyr Tyr Arg Lys	Gln Leu Ser Tyr Phe Asp Arg Arg	
1340	1345	1350
Ser Phe Glu Asn Lys Pro Pro	Ala His Ile Ala Ala Ser His Leu	
1355	1360	1365
Ser Glu Pro Ala Lys Pro Ala	His Ser Gln Asn Gln Ser Asn Phe	
1370	1375	1380
Ser Ser Tyr Ser Ser Lys Gly	Lys Pro Pro Glu Ala Asp Gly Val	

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1685 1690 1695
Val Glu Leu Arg Leu Pro His Cys Asp Pro Lys Thr Trp Gln Asn
1700 1705 1710
Lys Cys Leu Pro Gly Asp Pro Asn Tyr Leu Val Gly Ala Asn Cys
1715 1720 1725
Val Ser Val Leu Ile Asp His Phe
1730 1735

<210> 99
<211> 93
<212> PRT
<213> Homo sapiens

<400> 99

Met Gln Arg Arg Gly Gln Pro Leu Glu Asn His Val Ala Leu Ile His
1 5 10 15
Trp Gln Ser Ala Gly Ile Pro Ala Ser Lys Val His Asn Tyr Cys Asn
20 25 30
Met Lys Lys Ser Arg Leu Gly Arg Ser Arg Ala Val Arg Ile Ser Gln
35 40 45
Pro Leu Leu Ser Pro Arg Arg Cys Pro Leu His Leu Thr Glu Arg Gly
50 55 60
Ala Gly Leu Leu Gln Pro Gln Pro Gln Gly Pro Val Arg Thr Pro Gly
65 70 75 80
Pro Pro Pro Gly Val Thr Gln Arg Pro Arg Thr Thr Glu
85 90

<210> 100
<211> 582
<212> PRT
<213> Homo sapiens

<400> 100

Asp Val Ser Arg Cys Ala His Arg Ala Arg Pro Gly Ala Ile Met Leu
1 5 10 15
Leu Leu Pro Ser Ala Ala Asp Gly Arg Gly Thr Ala Ile Thr His Ala
20 25 30
Leu Thr Ser Ala Ser Thr Leu Cys Gln Val Glu Pro Val Gly Arg Trp
35 40 45
Phe Glu Ala Phe Val Lys Arg Arg Asn Arg Asn Ala Ser Ala Ser Phe
50 55 60
Gln Glu Leu Glu Asp Lys Lys Glu Leu Ser Glu Glu Ser Glu Asp Glu
65 70 75 80
Glu Leu Gln Leu Glu Glu Phe Pro Met Leu Lys Thr Leu Asp Pro Lys
85 90 95

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Asp	Trp	Lys	Asn	Gln	Asp	His	Tyr	Ala	Val	Leu	Gly	Leu	Gly	His	Val
			100					105					110		
Arg	Tyr	Lys	Ala	Thr	Gln	Arg	Gln	Ile	Lys	Ala	Ala	His	Lys	Ala	Met
		115					120					125			
Val	Leu	Lys	His	His	Pro	Asp	Lys	Arg	Lys	Ala	Ala	Gly	Glu	Pro	Ile
	130					135					140				
Lys	Glu	Gly	Asp	Asn	Asp	Tyr	Phe	Thr	Cys	Ile	Thr	Lys	Ala	Tyr	Glu
145					150				155						160
Met	Leu	Ser	Asp	Pro	Val	Lys	Arg	Arg	Ala	Phe	Asn	Ser	Val	Asp	Pro
				165					170					175	
Thr	Phe	Asp	Asn	Ser	Val	Pro	Ser	Lys	Ser	Glu	Ala	Lys	Asp	Asn	Phe
			180					185					190		
Phe	Glu	Val	Phe	Thr	Pro	Val	Phe	Glu	Arg	Asn	Ser	Arg	Trp	Ser	Asn
		195					200					205			
Lys	Lys	Asn	Val	Pro	Lys	Leu	Gly	Asp	Met	Asn	Ser	Ser	Phe	Glu	Asp
		210				215					220				
Val	Asp	Ile	Phe	Tyr	Ser	Phe	Trp	Tyr	Asn	Phe	Asp	Ser	Trp	Arg	Glu
225					230					235					240
Phe	Ser	Tyr	Leu	Asp	Glu	Glu	Glu	Lys	Glu	Lys	Ala	Glu	Cys	Arg	Asp
				245					250					255	
Glu	Arg	Arg	Trp	Ile	Glu	Lys	Gln	Asn	Gly	Ala	Thr	Arg	Ala	Gln	Arg
			260					265					270		
Lys	Lys	Glu	Glu	Met	Asn	Arg	Ile	Arg	Thr	Leu	Val	Asp	Asn	Ala	Tyr
		275					280					285			
Ser	Cys	Asp	Pro	Arg	Ile	Lys	Lys	Phe	Lys	Glu	Glu	Glu	Lys	Ala	Lys
		290				295					300				
Lys	Glu	Ala	Glu	Lys	Lys	Ala	Lys	Ala	Glu	Ala	Lys	Arg	Lys	Glu	Gln
305					310					315					320
Glu	Ala	Lys	Glu	Lys	Gln	Arg	Gln	Ala	Glu	Leu	Glu	Ala	Ala	Arg	Leu
				325					330					335	
Ala	Lys	Glu	Lys	Glu	Glu	Glu	Glu	Val	Arg	Gln	Gln	Ala	Leu	Leu	Ala
			340					345					350		
Lys	Lys	Glu	Lys	Asp	Ile	Gln	Lys	Lys	Ala	Ile	Lys	Lys	Glu	Arg	Gln
		355				360						365			
Lys	Leu	Arg	Asn	Ser	Cys	Lys	Ile	Glu	Glu	Ile	Asn	Glu	Gln	Ile	Arg
		370				375					380				
Lys	Glu	Lys	Glu	Glu	Ala	Glu	Ala	Arg	Met	Arg	Gln	Ala	Ser	Lys	Asn
385					390					395					400
Thr	Glu	Lys	Ser	Thr	Gly	Gly	Gly	Gly	Asn	Gly	Ser	Lys	Asn	Trp	Ser
				405					410					415	

Glu	Asp	Asp	Leu	Gln	Leu	Leu	Ile	Lys	Ala	Val	Asn	Leu	Phe	Pro	Ala
			420					425					430		
Arg	Thr	Asn	Ser	Arg	Trp	Glu	Val	Ile	Ala	Asn	Tyr	Met	Asn	Ile	His
		435					440					445			
Ser	Ser	Ser	Gly	Val	Lys	Arg	Thr	Ala	Lys	Asp	Val	Ile	Gly	Lys	Ala
		450				455					460				
Lys	Ser	Leu	Gln	Lys	Leu	Asp	Pro	His	Gln	Lys	Asp	Asp	Ile	Asn	Lys
465					470					475					480
Lys	Ala	Phe	Asp	Lys	Phe	Lys	Lys	Glu	His	Gly	Val	Val	Pro	Gln	Ala
				485					490					495	
Asp	Asn	Ala	Thr	Pro	Ser	Glu	Arg	Phe	Glu	Gly	Pro	Tyr	Thr	Asp	Phe
			500					505					510		
Thr	Pro	Trp	Thr	Thr	Glu	Glu	Gln	Lys	Leu	Leu	Glu	Gln	Ala	Leu	Lys
		515					520					525			
Thr	Tyr	Pro	Val	Asn	Thr	Pro	Glu	Arg	Trp	Glu	Lys	Ile	Ala	Glu	Ala
	530					535					540				
Val	Pro	Gly	Arg	Thr	Lys	Lys	Asp	Cys	Met	Lys	Arg	Tyr	Lys	Glu	Leu
545					550					555					560
Val	Glu	Met	Val	Lys	Ala	Lys	Lys	Ala	Ala	Gln	Glu	Gln	Val	Leu	Asn
				565					570					575	
Ala	Ser	Arg	Ala	Lys	Lys										
			580												

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